



#26

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: White Examiner: Alvarez, Raquel  
Serial No.: 09/381,742 Group Art Unit: 3622  
Filing Date: October 13, 1999 Confirmation No.: 4358  
For: Exchange Method and Apparatus  
Attorney docket no. GRENP001NP

RECEIVED

DEC 27 2002

GROUP 3600

Cert. under 37 CFR 1.8  
This paper and the attachments named  
herein are being deposited with the  
United States Postal Service with  
sufficient postage as first class mail  
and addressed to Assistant Commissioner  
for Patents, Washington, D.C. 20231 on

December 18, 2002  
Carl O. Grenex  
Name Signature  
Carl O. Grenex

APPEAL BRIEF

Assistant Commissioner for Patents  
Washington, D.C. 20231  
Sir:

Responsive to the Official Action mailed on October 10, 2001 for the above-captioned application (hereinafter, the "Office Action"), the present appeal brief is respectfully submitted.

**(1) Real Party In Interest**

The real party in interest is Grenex Corporation, the assignee.

**(2) Related Appeals And Interferences**

There are no other appeals or interferences known to Appellant, Appellant's legal representative or Appellant's assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status Of Claims**

The status of all the claims, pending or cancelled, is as follows, where (i) the column titled "Embodiment" identifies for claims being appealed the applicable embodiment as set forth below in the Summary Of Invention, (ii) the column titled "Issues" identifies for the claims being

09381742

0008609 150610

01/27/2003 PLENIS

320.00CH

01 FC:1402

appealed the applicable issues on appeal and (iii) the column titled "Note" sets forth other potentially interesting information about the claims:

<u>Claims</u>	<u>Status</u>	<u>Embodiment</u>	<u>Issues</u>	<u>Note</u>
1-64	Withdrawn based on Applicant's election with traverse			
52-55	Cancelled			See claims 187-190
56-64	Withdrawn based on Applicant's election with traverse			
65-75	Pending, Allowed			
76-81	Pending, Allowed			
82-87	Pending, Allowed			
88-93	Pending, Allowed			
94-100	Pending, Allowed			
101-108	Pending, Allowed			
109-117	Pending, Allowed			
118-123	Pending, Allowed			
124-128	Cancelled			See claims 191-195
129	Pending, Allowed			
130-136	Cancelled			See claims 196-202
137	Pending, Allowed			
138-140	Pending, Allowed			
141	Withdrawn based on Applicant's election with traverse			
142-147	Cancelled			See claims 203-208
148-152	Withdrawn based on Applicant's election with traverse			
153-158	Withdrawn based on Applicant's election with traverse			
159-162	Withdrawn based on Applicant's election with traverse			
163	Pending, Allowed			
164	Pending, Allowed			
165	Pending, Allowed			
166	Pending, Allowed			
167	Withdrawn based on Applicant's			

<u>Claims</u>	<u>Status</u>	<u>Embodiment</u>	<u>Issues</u>	<u>Note</u>
	election with traverse			
168	Pending, Allowed			
169	Pending, Rejected, APPEALED	1	1, 22	
170	Pending, Rejected, APPEALED	1	1, 22	
171	Pending, Rejected, APPEALED	2	2, 22	
172	Pending, Rejected, APPEALED	1	1, 22	
173	Pending, Rejected, APPEALED	1	3, 22	
174	Pending, Rejected, APPEALED	1	4, 22	
175	Pending, Rejected, APPEALED	1	3, 22	
176	Pending, Rejected, APPEALED	1	3, 22	
177	Pending, Rejected, APPEALED	3	5, 22	
178	Pending, Rejected, APPEALED	3	5, 22	
179	Pending, Rejected, APPEALED	5	7, 22	
180	Pending, Rejected, APPEALED	5	9, 22	
181	Pending, Rejected, APPEALED	5	7, 22	
182	Pending, Rejected, APPEALED	6	8, 22	
183	Pending, Rejected, APPEALED	6	8, 22	
184	Pending, Rejected, APPEALED	7	10, 22	
185	Pending, Rejected, APPEALED	13	18, 22	
186	Pending, Rejected, APPEALED	13	20, 22	
187	Pending, Rejected, APPEALED	4	6	See deleted claim 52
188	Pending, Rejected, APPEALED	4	6	See deleted claim 53
189	Pending, Rejected, APPEALED	8	11	See deleted claim 54
190	Pending, Rejected, APPEALED	9	12	See deleted claim 55
191	Pending, Rejected, APPEALED	10	13	See deleted claim 124
192	Pending, Rejected, APPEALED	10	13	See deleted claim 125
193	Pending, Rejected, APPEALED	11	14	See deleted claim 126
194	Pending, Rejected, APPEALED	10	13	See deleted claim 127
195	Pending, Rejected, APPEALED	10	13	See deleted claim 128
196	Pending, Rejected, APPEALED	15	23	See deleted claim 130
197	Pending, Rejected, APPEALED	10	13	See deleted

<u>Claims</u>	<u>Status</u>	<u>Embodiment</u>	<u>Issues</u>	<u>Note</u>
				claim 131
198	Pending, Rejected, APPEALED	10	13	See deleted claim 132
199	Pending, Rejected, APPEALED	12	15	See deleted claim 133
200	Pending, Rejected, APPEALED	10	16	See deleted claim 134
201	Pending, Rejected, APPEALED	10	13	See deleted claim 135
202	Pending, Rejected, APPEALED	10	13	See deleted claim 136
203	Pending, Rejected, APPEALED	7	17	See deleted claim 142
204	Pending, Rejected, APPEALED	14	19	See deleted claim 143
205	Pending, Rejected, APPEALED	14	21	See deleted claim 144
206	Pending, Rejected, APPEALED	14	21	See deleted claim 145
207	Pending, Rejected, APPEALED	14	21	See deleted claim 146
208	Pending, Rejected, APPEALED	14	21	See deleted claim 147
209-214	Withdrawn from Consideration by Examiner, Canceled			

Claims 169-208 are appealed.

#### **(4) Status Of Amendments**

One amendment has been filed subsequent to final rejection.

#### **(5) Summary Of Invention**

The invention relates generally to (i) using identifiers associated with offers to permit unknown persons to receive detailed information about offers submitted to an offer matching system (Application at page 1 lines 15-16) and (ii) improving how an offer matching system executes offers (Application at page 34 lines 16-26).

In general, the order in which the various embodiments of the invention are set forth below parallels the order in which the Examiner discussed those embodiments in the Office Action; however, (i) in a few instances, Applicant has elected to treat as a single embodiment

claims that the Examiner discussed in different places in the Office Action and (ii) the data stream of claim 196 has been moved from the first position to the last position.

In a **first** embodiment the invention (e.g., claims 169, 170, 172, 173, 174, 175, 176) includes:

- (a) associating [1105] a first identifier with a first offer to buy or to sell a traded item (Application at page 4 lines 11-12 and page 23 line 15);
- (b) requesting information about the first offer with a request that
  - (b-i) includes the first identifier (Application at page 4 lines 19-21 and page 24 lines 10-12) and
  - (b-ii) is received in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the first offer (Application at page 4 lines 21-23 and page 24 lines 15-16); and
- (c) responding [1209] to such request with a response [1154] that includes a data item that concerns the first offer (Application at page 4 lines 21-24 and page 24 lines 17-20). See the Application at page 4 lines 9-24 and at page 30 lines 9-19.

In a **second** embodiment the invention (e.g., claim 171) includes all elements of the first embodiment plus the following additional elements:

- (i) the request (as described above in the first embodiment) also includes a requirement that a first event occur and
- (ii) the response [1254] (as described above in the first embodiment) is not sent [1209] until after the event occurs [1208] (Application at page 22 line 21 to page 23-13 and Application at page 22 lines 24-25).

In a **third** embodiment the invention (e.g., claims 177 and 178) includes all elements of the first embodiment plus the following additional elements:

- (i) the response [1254] (as described above in the first embodiment) also includes a digital signature that is sufficient to permit a recipient of the response to determine with reasonable certainty whether the reply was sent by the offer matching system and whether the reply has been altered (See the Application at page 29 line 25 - page 30 line 8) and
- (ii) the response [1254] is sent [1209] in a manner that is secured without relying upon the digital signature. (See Application at page 11 lines 8-18 and page 36 lines 1-3.)

In a **fourth** embodiment the invention (e.g., claims 187 and 188) includes:

(a) an offer matching system [2001] executes [1203] a first offer at least in part against a second offer in accordance with a set of rules that govern the operation of the offer matching system,

(b) a first disclosee [2007] sends [1213, 1214] to a first participant [2002] a first request [1256] for information concerning the first offer,

(c) in response to the first request, the first participant [2002] sends [1206, 1207] to the offer matching system [2001] a second request [1253] for information concerning the first offer,

(d) in response to the second request, the offer matching system sends [1304, 1305] to the first disclosee a response [1352] comprising:

(i) a first data item responsive to the first request and

(ii) a first digital signature from the offer matching system. (See Application at page 29 line 25 - page 30 line 8.)

In a **fifth** embodiment the invention (e.g., claims 179, 180 and 181) includes:

(a) associating [1105] a first identifier with a first offer to buy or to sell a traded item (Application at page 4 lines 11-12 and page 23 line 15);

(b) publishing [1401, 1601, 1605, 1609, 1701, 1705, 1709], in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet [1451, 1651, 1652, 1653, 1751, 1752, 1753] that comprises the first identifier and a data item concerning the first offer, where the data item is not the first identifier.

In a **sixth** embodiment the invention (e.g., claims 182 and 183) includes:

(a) a first disclosee's [2007] determining a first identifier associated with a first offer to buy or to sell a traded item;

(b) the first disclosee's [2007] receiving [1606] a data packet [1652] from the system [2001], where:

(i) the first disclosee received the data packet in a manner that would permit members of the public with no right to receive nonpublic information about the first offer to receive and to use such data packet,

(ii) the data packet [1652] comprises the first identifier,

(iii) the data packet [1652] comprises a data item that concerns the first offer, where the data item is not the first identifier, and

(iv) until receiving the data packet [1652], the first disclosee [2007] did not know that the data item concerns the first offer; and

(c) the first disclosee's [2007] detecting [1607] that the data packet includes the first identifier, whereby the first disclosee [2007] gains possession of information which discloses that the data item concerns the first offer.

In a **seventh** embodiment of the invention (claims 184 and 203) an offer matching system [2001] refuses to execute a first offer from a first participant [2002] before the first offer is approved by a first monitor [2006] and the offer matching system [2001] executes the first offer at least in part after the first offer is approved by the first monitor [2006]. (See Application at page 7 lines 13-18, page 9 line 17 - page 11 line 3 and page 34 lines 8-15.)

In a **eighth** embodiment the invention (e.g., claim 189) includes all of the elements of the fourth embodiment plus the following:

(i) the first request [1256] comprises a requirement that a first event occur and

(ii) the offer matching system [2001] does not respond to the second request until the first event occurs [1303].

In a **ninth** embodiment the invention (e.g., claim 190) includes all of the elements of the fourth embodiment plus the following:

(i) a predetermined relationship exists between the first data item (in a response to a request for information concerning the first offer) and the second offer.

In a **tenth** embodiment the invention (e.g., claims 191, 192, 194, 195, 197, 198, 200, 201, 202) includes:

(a) an offer matching system's [2001] associating [1106] a first offer with a first identifier,

(b) the offer matching system's [2001] executing [1203] the first offer against a second offer in accordance with a set of rules that govern the operation of the offer matching system,

(c) publishing [1401, 1601, 1605, 1609] either:

(i) a data packet [1451, 1651, 1652, 1653] that includes the first

identifier and a first data item that concerns the first offer or

- (ii) a data packet [1451, 1651, 1652, 1653] that includes the first identifier and a first data item concerning an execution of the first offer against the second offer.

In an **eleventh** embodiment the invention (e.g., claim 193) includes all of the elements of the tenth embodiment plus the following:

- (i) the published data packet [1451, 1651, 1652, 1653] includes the first identifier and a first data item that concerns the first offer and
- (ii) a predetermined relationship exists between the first data item and the second offer.

In a **twelfth** embodiment the invention (e.g., claim 199) includes all of the elements of the tenth embodiment plus the following:

- (i) the offer matching system's [2001] associating the second offer with a second identifier and
- (ii) publishing [1401, 1601, 1605, 1609] the second identifier as part of the published data packet [1451, 1651, 1652, 1653].

In a **thirteenth** embodiment of the invention (claim 185-186) an offer matching system executes offers using the following steps:

- (a) storing in the offer matching system [2001] a description of a sell offer for the traded item that includes a minimum price at which the sell offer may be executed;
- (b) storing in the offer matching system [2001] a description of a buy offer for a traded item that includes a maximum price at which the buy offer may be executed, where the maximum price is greater than the minimum price;
- (c) selecting a first price that is indicative of recent trading activity for the traded item, where the first price is greater than the minimum price and the first price is less than the maximum price; and
- (d) executing [1203] the sell offer, in whole or in part, against the buy offer at the first price. (See generally Application at page 34 lines 16-26.)

In a **fourteenth** embodiment of the invention (claim 204-208) an offer matching system [2001] executes [1203] offers using the following steps:

- (a) storing in the offer matching system [2001] a description of a buy offer for a traded item;



(b) storing in the offer matching system [2001] a description of a sell offer for the traded item;

(c) detecting that the buy offer may be executed in whole or in part against the sell offer;

(d) determining a minimum price that is the lowest price at which the sell offer may be executed against the buy offer;

(e) determining a maximum price that is the highest price at which the buy offer may be executed against the sell offer, wherein the maximum price is greater than the minimum price;

(f) selecting a first price that is indicative of recent trading activity for the traded item;

(g) executing the buy offer against the sell offer, in whole or in part, at a second price that is equal to:

(i) the minimum price, if the first price is less than the minimum price,

(ii) the first price, if the minimum price is less than the first price and the first price is less than the maximum price, or

(iii) the maximum price, if the first price is greater than the maximum price. (See generally Application at page 34 lines 16-26.)

In an **fifteenth** embodiment of the invention (claim 196), a data stream (which largely parallels the product of the process set forth in the tenth embodiment) is comprised of a plurality of data packets [1651, 1652, 1653], each of the data packets comprising a respective identifier and a respective data item, wherein:

each respective identifier is associated with a respective offer, and each respective identifier is not associated with any other offer,

an offer matching system has previously received a description of each respective offer from a respective participant,

each respective participant possesses information which discloses that a respective related person satisfies a respective condition selected from the group consisting of:

the respective offer is for the benefit of the respective related person,

the respective offer is for the account of the respective related person,  
the respective related person made an investment decision to make the respective offer,

the respective related person has a financial interest in the respective offer,  
the respective related person is financially responsible (as principal, guarantor or otherwise) for the respective offer,

the respective related person is financially responsible (as principal, guarantor or otherwise) for a trade arising out of the respective offer,

the respective related person is acting as an agent with respect to the respective offer,

the respective related person is acting as a principal with respect to the respective offer,

the offer matching system possesses information which discloses for each respective offer the respective identifier associated with the respective offer,

each respective data item concerns the respective offer associated with the respective identifier,

a set of rules that govern the operation of the offer matching system permit the offer matching system to disclose publicly that the respective data items concern the respective offers and

the set of rules does not permit the offer matching system to disclose publicly that the respective related persons satisfy the respective conditions.

## **(6) Issues**

In determining the order in which issues are presented in this Appeal Brief, the Applicant has been guided primarily by a desire to track the order in which the Examiner addressed the issues and the claims in the Office Action; however, discussion of the data stream of claim 196 has been moved to the end of the list even though the Examiner discussed it first.

The **first** issue on appeal is whether Sibley suffices to justify rejection of claims 169 and

172 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's associating an identifier with an offer to buy or to sell a traded item, (a-2) receiving a request, (a-3) receiving a request that includes the identifier, (a-4) receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer and (a-5) sending a reply, in response to the request, that comprises a data item that concerns the offer; (b) Sibley's teaching away from (b-1) using a query/response protocol to communicate information about offers to buy and to sell and (b-2) allowing communications about offers in a manner that does not imply that such communication is from a person entitled to receive nonpublic information about such offer; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **second** issue on appeal is whether Sibley suffices to justify rejection of claim 171 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's associating an identifier with an offer to buy or to sell a traded item, (a-2) receiving a request, (a-3) receiving a request that includes the identifier, (a-4) receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer, (a-5) sending a reply, in response to the request, that comprises a data item that concerns the offer receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer, (a-6) a request that comprises a requirement that an event occur and (a-7) delaying responding until after such event occurs; (b) Sibley's teaching away from using a query/response protocol to communicate information about offers to buy and to sell; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **third** issue on appeal is whether Sibley suffices to justify rejection of claims 173, 175 and 176 despite: (a) Sibley's failure to disclose (a-1) a first disclosee's determining an identifier associated with a first offer to buy or to sell a traded item, (a-2) sending a request, (a-3) sending a request that includes the identifier, (a-4) making such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer and (a-5) receiving a reply comprising a data item that concerns the offer; (b) Sibley's teaching away from (b-1) the use of a query/response system for communicating information about offers to buy or to sell and (b-2) allowing communications about offers in a manner that does not imply that such communication is from a person entitled to receive nonpublic

information about such offer; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **fourth** issue on appeal is whether Sibley suffices to justify rejection of claim 174 despite: (a) Sibley's failure to disclose (a-1) a first disclosee's determining an identifier associated with a first offer to buy or to sell a traded item, (a-2) sending a request, (a-3) sending a request that includes the identifier, (a-4) making such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer and (a-5) receiving a reply comprising a data item that concerns the offer; (b) Sibley's teaching away from (b-1) the use of a query/response system for communicating information about offers to buy or to sell and (b-2) allowing communications about offers in a manner that does not imply that such communication is from a person entitled to receive nonpublic information about such offer; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **fifth** issue on appeal is whether Sibley suffices to justify rejection of claims 177 and 178 despite: (a) Sibley's failure to disclose (a-1) associating a first offer with a first identifier, (a-2) a central exchange host's receiving a request for information that includes the first identifier, (a-3) the central exchange host's sending a reply to such a request, (a-4) the central exchange host's sending a reply to such a request that comprises a first data item that concerns the first offer, (a-5) the central exchange host's sending a reply to such a request that comprises a first data item that concerns the first offer and a digital signature, (a-6) the central exchange host's sending such a reply in a manner that is secured without relying upon the digital signature; (b) Sibley's teaching away from the use of a query/response system for communicating information about offers; and (c) the absence of any statement by the Examiner of a reasonable basis for a view as to what one skilled in the art would do.

The **sixth** issue on appeal is whether Sibley suffices to justify rejection of claims 187 and 188 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-3) a first request for information concerning the first offer, (a-4) a second request in response to a first request, (a-5) communicating a first response from the offer matching system to the first disclosee, (a-6)

any digital signature, (a-7) the first participant's relaying the first data item and the first digital signature to the first disclosee; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (b-3) having Sibley's central exchange host use a query/response protocol to communicate information about offers and (b-4) the use of digital signatures; and (c) the absence of any statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **seventh** issue on appeal is whether Sibley suffices to justify rejection of claims 179 and 181 despite: (a) Sibley's failure to disclose (a-1) associating a first offer with a first identifier, (a-2) publishing any information, (a-3) publishing any information in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer and (a-4) publishing a data packet that comprises both the first identifier and some other data item concerning the first offer; (b) Sibley's teaching away from publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **eighth** issue on appeal is whether Sibley suffices to justify rejection of claims 182 and 183 despite: (a) Sibley's failure to disclose (a-1) a first disclosee's determining a first identifier associated with a first offer to buy or to sell a traded item, (a-2) a first disclosee's receiving a data packet from Sibley's central exchange host in a manner that would permit members of the public with no right to receive nonpublic information about the first offer to receive and to use such data packet, (a-3) any data packet that comprises both a first identifier and another data item that concerns the first offer, (a-4) a first disclosee that does not know that the data item concerns the first offer until after the first disclosee receives the data packet, and (a-5) a first disclosee's detecting that a data packet includes an identifier associated with an offer; (b) Sibley's teaching away from a first disclosee's receiving a data packet from Sibley's central exchange host in a manner that would permit members of the public with no right to receive nonpublic information about an offer to receive and to use such data packet; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **ninth** issue on appeal is whether Sibley suffices to justify rejection of claim 180

despite: (a) Sibley's failure to disclose (a-1) associating a first offer with a first identifier, (a-2) publishing any information, (a-3) publishing any information in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer and (a-4) publishing a data packet that comprises both the first identifier and some other data item concerning the first offer; (b) Sibley's teaching away from publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **tenth** issue on appeal is whether Sibley suffices to justify rejection of claim 184 despite: (a) Sibley's failure to disclose (a-1) a first monitor, (a-2) Sibley's central exchange host storing an association among a first local exchange and the first monitor, (a-3) Sibley's central exchange host's determining that a first description is from a particular local exchange, (a-4) Sibley's central exchange host's receiving a message from a first monitor that approves a first offer, (a-5) Sibley's central exchange host's executing the first offer at least in part against a second offer only after Sibley's central exchange host receives a message that approves the first offer; (b) Sibley's teaching away from having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **eleventh** issue on appeal is whether Sibley suffices to justify rejection of claim 189 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-3) a first request for information concerning the first offer, (a-4) a second request in response to a first request, (a-5) communicating a first response from the offer matching system to the first disclosee, (a-6) any digital signature, (a-8) a request that comprises a requirement that an event occur, and (a-9) delaying responding until after such event occurs; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (b-3) having Sibley's central exchange host use a query/response protocol to communicate information about offers, and (b-4) the use of digital signatures; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art

would do.

The **twelfth** issue on appeal is whether Sibley suffices to justify rejection of claim 190 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-3) a first request for information concerning the first offer, (a-4) a second request in response to a first request, (a-5) communicating a first response from the offer matching system to the first discloser, (a-6) any digital signature, (a-8) a predetermined relationship existing between the first data item and the second offer; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (b-3) having Sibley's central exchange host use a query/response protocol to communicate information about offers, and (b-4) the use of digital signatures; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **thirteenth** issue on appeal is whether Sibley suffices to justify rejection of claims 191, 192, 194, 195, 197, 198, 201 and 202 despite: (a) Sibley's failure to disclose (a-1) associating an offer with a globally unique identifier, (a-2) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-3) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-4) publishing any information, and (a-5) publishing either a data packet that includes a first offer identifier and a first data item that concerns the first offer or a data packet that includes a first offer identifier and a first data item concerning an execution of the first offer against the second offer; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, and (b-3) publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **fourteenth** issue on appeal is whether Sibley suffices to justify rejection of claim 193 despite: (a) Sibley's failure to disclose (a-1) associating an offer with a globally unique identifier, (a-2) Sibley's central exchange host's executing a first offer at least in part against a

second offer, (a-3) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-4) publishing any information, (a-5) publishing a data packet that includes both the first offer identifier and a first data item that concerns the first offer, (a-6) a predetermined relationship between the first data item and a second offer against which the first offer was executed at least in part; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (b-3) publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do

The **fifteenth** issue on appeal is whether Sibley suffices to justify rejection of claim 199 despite: (a) Sibley's failure to disclose (a-1) associating an offer with a globally unique identifier, (a-2) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-3) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange, (a-4) publishing any information, (a-5) publishing a data packet that includes both the first offer identifier and a first data item that concerns the first offer, (a-6) associating a second offer with a second globally unique identifier, and (a-7) publishing such second identifier as part of the first data packet; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, and (b-3) publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **sixteenth** issue on appeal is whether Sibley suffices to justify rejection of claim 200 despite: (a) Sibley's failure to disclose (a-1) associating an offer with a globally unique identifier, (a-2) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-3) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-4) publishing any information, and (a-5) publishing either a data packet that includes a first offer identifier and a first data item that concerns the first offer or a data packet that includes a first offer identifier and a first data item concerning an execution of the first offer against the second offer; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host execute one offer against another, (b-2) executing offers in accordance



with a set of rules that govern the operation of Sibley's central exchange host, and (b-3) publishing any information; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **seventeenth** issue on appeal is whether Sibley suffices to justify rejection of claim 203 despite: (a) Sibley's failure to disclose (a-1) storing in Sibley's central exchange host a first association among one of Sibley's local exchanges and one of Sibley's user terminal display monitors, (a-2) Sibley's central exchange host's determining that the first description of an offer is from the first local exchange, (a-3) Sibley's central exchange host's receiving a message that approves an offer, (a-4) Sibley's central exchange host's determining that an approval message is from a particular user terminal display monitor, (a-5) Sibley's central exchange host's refusing, before determining that an approval message is from a particular user terminal display monitor, to execute a first offer against any other offer, and (a-6) Sibley's central exchange host's executing offers after determining that an approval message is from a particular user terminal display monitor; (b) Sibley's teaching away from having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **eighteenth** issue on appeal is whether Sibley suffices to justify rejection of claim 185 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host selecting a first price that is indicative of recent trading activity for a traded item, (a-2) Sibley's central exchange host selecting a first price that is greater than the minimum price at which a sell offer may be executed and less than the maximum price at which a buy offer may be executed, (a-3) Sibley's central exchange host executing a sell offer against a buy offer at any price, and (a-4) Sibley's central exchange host executing a sell offer against a buy offer at a price (i.e., the first price) that is indicative of recent trading activity for the traded item and is not equal to either the minimum sell price or the maximum buy price; (b) Sibley's teaching away from having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **nineteenth** issue on appeal is whether Sibley suffices to justify rejection of claim 204 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's detecting that a buy offer may be executed in whole or in part against a sell offer, (a-2) Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be

executed, (a-3) Sibley's central exchange host's determining a maximum price that is the maximum price at which the buy offer may be executed, (a-4) a buy offer that may be executed against a sell offer wherein the maximum buy price is MORE than (and thus, does not equal) the minimum sell price, (a-5) Sibley's central exchange host's selecting a first price that is indicative of recent trading activity for a traded item, (a-6) Sibley's central exchange host's executing a buy offer against a sell offer, and (a-7) executing a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host detect that a buy offer may be executed in whole or in part against a sell offer, (b-2) operating Sibley's central exchange host so that it determines a minimum sell price and a maximum buy price, and (b-3) having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **twentieth** issue on appeal is whether Sibley suffices to justify rejection of claim 186 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host selecting a first price that is indicative of recent trading activity for a traded item, (a-2) Sibley's central exchange host selecting a first price that is greater than the minimum price at which a sell offer may be executed and less than the maximum price at which a buy offer may be executed, (a-3) Sibley's central exchange host executing a sell offer against a buy offer at any price, and (a-4) Sibley's central exchange host executing a sell offer against a buy offer at a price (i.e., the first price) that is indicative of recent trading activity for the traded item and is not equal to either the minimum sell price or the maximum buy price; (b) Sibley's teaching away from having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **twenty first** issue on appeal is whether Sibley suffices to justify rejection of claims 205-208 despite: (a) Sibley's failure to disclose (a-1) Sibley's central exchange host's detecting that a buy offer may be executed in whole or in part against a sell offer, (a-2) Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be executed, (a-3) Sibley's central exchange host's determining a maximum price that is the maximum price at which the buy offer may be executed, (a-4) a buy offer that may be executed

against a sell offer wherein the maximum buy price is MORE than (and thus, does not equal) the minimum sell price, (a-5) Sibley's central exchange host's selecting a first price that is indicative of recent trading activity for a traded item, (a-6) Sibley's central exchange host's executing a buy offer against a sell offer, and (a-7) executing a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price; (b) Sibley's teaching away from (b-1) having Sibley's central exchange host detect that a buy offer may be executed in whole or in part against a sell offer, (b-2) operating Sibley's central exchange host so that it determines a minimum sell price and a maximum buy price, and (b-3) having Sibley's central exchange host execute one offer against another; and (c) the absence of any reasonable statement by the Examiner of the basis for a view as to what one skilled in the art would do.

The **twenty second** issue on appeal is whether the Examiner's assertion that claims 169-186 are broader in scope than the allowed claims is sufficient to reject claims 169-186.

The **twenty third** issue on appeal is whether the Examiner is justified in rejecting claim 196 on the grounds that a data stream is non-statutory subject matter because the data therein does not impact functionality to the data stream, regardless of the content of the data stream.

#### **(7) Grouping Of Claims**

In determining the grouping of claims, the Applicant has been guided primarily by a desire to track the claim groupings suggested by the Examiner in the Office Action.

The grouping of claims is as follows (except in the cases specifically noted below, the grouping of claims parallels the Examiner's discussion in the Office Action):

for the **first** issue on appeal, claims 169, 170 and 172; for purposes of this appeal only, claim 169 stands or falls together with claim 170 (which is dependent from claim 169);

for the **second** issue on appeal, claim 171; claim 171 does not stand or fall together with claim 170, despite the Examiner's suggestion to the contrary;

for the **third** issue on appeal, claims 173, 175 and 176;

for the **fourth** issue on appeal, claim 174;

for the **fifth** issue on appeal, claims 177 and 178; claims 177 and 178 do not stand or fall together with claims 187 and 188, despite the Examiner's suggestion to the contrary;

for the **sixth** issue on appeal, claims 187 and 188; claims 187 and 188 do not stand or fall together with claims 177 and 178, despite the Examiner's suggestion to the contrary;

for the **seventh** issue on appeal, claims 179 and 181; claims 179 and 181 do not stand or fall together with claims 182 and 183, despite the Examiner's suggestion to the contrary;

for the **eighth** issue on appeal, claims 182 and 183; claims 182 and 183 do not stand or fall together with claims 179 and 181, despite the Examiner's suggestion to the contrary;

for the **ninth** issue on appeal, claim 180;

for the **tenth** issue on appeal, claim 184;

for the **eleventh** issue on appeal, claim 189;

for the **twelfth** issue on appeal, claim 190;

for the **thirteenth** issue on appeal, claims 191, 192, 194, 195, 197, 198, 201 and 202;

for the **fourteenth** issue on appeal, claim 193;

for the **fifteenth** issue on appeal, claim 199;

for the **sixteenth** issue on appeal, claim 200;

for the **seventeenth** issue on appeal, claim 203;

for the **eighteenth** issue on appeal, claim 185; claim 185 does not stand or fall together with claim 204, despite the Examiner's suggestion to the contrary;

for the **nineteenth** issue on appeal, claim 204; claim 204 does not stand or fall together with claim 185, despite the Examiner's suggestion to the contrary;

for the **twentieth** issue on appeal, claim 186; claim 186 does not stand or fall together with claims 205-208, despite the Examiner's suggestion to the contrary;

for the **twenty first** issue on appeal, claims 205, 206, 207 and 208; claims 205-208 do not stand or fall together with claim 186, despite the Examiner's suggestion to the contrary;

for the **twenty second** issue on appeal, claims 169-186; and

for the **twenty third** issue on appeal, claim 196.

## **(8) Argument**

**The first issue on appeal.** Claims 169 and 172 (see Summary of Invention above at first embodiment) are rejected under 35 USC 103(a) for the first time as obvious in view of Sibley. For purposes of this appeal only, Applicant admits that claim 169 stands or falls together with

claim 170 (which is dependent from claim 169) on the grounds that if claim 169 should be obvious in light of Sibley alone (an assumption that Applicant disputes) then claim 170 would also be obvious in light of Sibley alone (a conclusion that Applicant disputes);

(a) Sibley fails to disclose several elements of claims 169 and 172, including several of the elements which the Examiner asserts Sibley does disclose.

(a-1) Sibley fails to disclose Sibley's central exchange host's associating an identifier with an offer to buy or to sell a traded item. In the Office Action at page 3 lines 21-23, the Examiner asserts that Sibley, at column 5 line 51 - column 6 line 7, teaches associating a first offer to buy or to sell a traded item with a first identifier. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning associating an offer with an identifier. Sibley at column 6 line 1 mentions a "first code" that is associated with a particular local exchange (rather than a particular offer) and at column 6 line 3 mentions a "second code" that is associated with a particular user terminal (rather than a particular offer).

In the Office Action at Page 18 lines 20-21 (paragraph "I"), the Examiner asserts without support that "an identifier can be any specific characteristic of a person, an animal or a thing", and based upon that unsupported assertion concludes that "the identifier of an offer can be a specific price range of the offer". However, According to Merriam-Webster's Collegiate Dictionary on line (available at <http://www.m-w.com/> as of 2002.09.25), the noun "identifier" means: one that identifies. It does not make sense to say that the specific price range of an offer "identifies" such offer because using only a specific price range one would not be able to distinguish among multiple offers that all have the same specific price range but are for different traded items, different quantities, different sides (i.e., some to buy at the specific price range and some to sell at the specific price range), originate at different local exchanges, are originated by different traders, have different expiration dates, etc. It strains the English language past the breaking point to suggest that a specific price range serves to "identify" an offer if it simultaneously "identifies" many offers that are materially different. Furthermore, if the required identifier were merely a characteristic of the offer, then there would be no need to associate the identifier with the offer -- the characteristics of an offer are simply characteristic of such offer with no need to be "associated" with the offer.

(a-2) Sibley fails to disclose receiving a request. In the Office Action at page 3

lines 23-24, the Examiner asserts that Sibley, at column 5 line 51 - column 6 line 7, teaches receiving a request. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning receiving any sort of request.

(a-3) Sibley fails to disclose receiving a request that includes the identifier. In the Office Action at page 3 lines 23-24, the Examiner asserts that Sibley, at column 5 line 51 - column 6 line 7, teaches receiving a request for information where the request includes the first identifier associated with the first offer. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning associating an offer with an identifier or including an identifier in a request. Sibley at column 6 line 1 mentions a “first code” that is associated with a particular local exchange (rather than a particular offer) and at column 6 line 3 mentions a “second code” that is associated with a particular user terminal (rather than a particular offer).

(a-4) Sibley fails to disclose receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer. By asserting in the Office Action at page 4 lines 3-9 that receiving a request in such a manner would have been an obvious modification to Sibley, the Examiner implicitly admits that Sibley does not disclose receiving such a request in such a manner.

(a-5) Sibley fails to disclose sending a reply, in response to the request, that comprises a data item that concerns the offer. In the Office Action at page 4 lines 8-9, the Examiner asserts that Sibley further teaches, at column 5 line 51 - column 6 line 7, sending a reply that concerns the first offer. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate therein any disclosure of sending any reply whatsoever or of sending a reply that comprises a data item that concerns the first offer.

(b) Sibley teaches away from the following elements of claims 169 and 172:

(b-1) Sibley teaches away from the use of a query/response protocol to communicate information about offers to buy or to sell. For example, (i) Sibley at column 2 lines 15-40 teaches having Sibley’s central exchange host broadcast information about all offers to all trader’s terminals and having each trader’s terminal sort out and display the information of interest to such trader (column 2 lines 23-28), (ii) Sibley at column 7 line 61 - column 8 line 7 teaches transmitting information “in bulk” from the central host exchange to all user

terminals and then displaying on each user terminal the information that the applicable user requests from his terminal and (iii) Sibley at column 10 lines 17-31 teaches having each user terminal receive an “unmanageable” total volume of information that is transformed by the intelligent terminal into a concise subset by filtering out the information that the user has selected through his interactions with the user terminal. The broadcast / filter approach taught by Sibley teaches away from the required request / response approach.

(b-2) Sibley teaches away from allowing communications about offers in a manner that does not imply that such communication is from a person entitled to receive nonpublic information about such offer in the following ways:

(b-2-i) Sibley teaches that the trader at each user terminal should be identified and authenticated (column 9 lines 36-57 and Figure 5).

(b-2-ii) Sibley teaches that all communications should be encrypted (column 8 lines 47-52).

(c) The Examiner has failed to provide any basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

In the Office Action at page 4 lines 3-8, the Examiner states without reasonable support, and without providing any evidence about what was the state of the art at the time of Applicant’s invention, that:

“... it would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to have included receiving the [request] {although the Examiner actually wrote ‘receiving the information’, Applicant presumes that the Examiner meant to say that claim 169 element (b)(ii) and claim 172 element (b)(ii) were obvious} in a manner that does not imply the person [requesting the information is entitled to receive nonpublic information concerning the offer] {although the Examiner actually wrote ‘receiving the information’ and said nothing about entitlement to receive nonpublic information, Applicant presumes that the Examiner meant to say that claim 169 element (b)(ii) and claim 172 element (b)(ii) were obvious} ...”

The examiner asserts that such a modification of Sibley’s system would have been obvious because Sibley’s user terminals are identified but not necessarily the persons receiving

information and such a modification would allow a trader's identity to remain anonymous for security reasons. However, as discussed below, (1) Sibley teaches that the person using a user terminal should be identified and verified, (2) Sibley's user terminals do not submit communications concerning offers to the central host exchange (all such communications flow through, and are submitted to the central exchange host by, a local exchange), (3) Sibley teaches away from allowing a trader's identity to remain anonymous and (4) modifying Sibley's system to allow a trader's identity to remain anonymous from Sibley's central exchange host would degrade, rather than enhance, security.

First, Sibley teaches at column 9 lines 36-57 and in Figure 5 that a trader should be required to input the trader's first name, last name and access code before being allowed to utilize a user terminal. Sibley at column 9 lines 47-48 even suggests using retinal and/or finger print verification to further secure access to user terminals. Thus, Sibley teaches that the person receiving information through a user terminal should be identified and verified.

Second, whether or not Sibley's system identifies the person receiving information at a user terminal is irrelevant in the context of determining the manner in which a request for information about an offer is received by the central exchange host. Sibley, at column 5 lines 34-41, teaches that if a remote terminal user desires to receive or transmit information about offers, then such user MUST communicate with its local exchange which then relays the communication to the central exchange host (even though Sibley does teach that other types of information can be communicated directly between user terminals and the central host exchange). Thus, if Sibley's central exchange host receives any communication about an offer, such communication MUST be from a local exchange. The Examiner has offered no evidence that Sibley's central exchange host would ever receive any communication about an offer from a local exchange in a manner that does not imply that the communication is from a person entitled to receive nonpublic information concerning such offer and the Examiner has offered no evidence about the state of the art at the time of Applicant's invention.

Third, Sibley teaches away from allowing a trader's identity to remain anonymous by teaching that a trader should be required to input the trader's first name, last name and access code before utilizing a user terminal (column 9 lines 36-57 and Figure 5).

Fourth, modifying Sibley's system to allow a trader's identity to remain anonymous from Sibley's central exchange host would degrade, rather than enhance, security.



Consider for a moment what might happen if Sibley's system were modified to permit unidentified traders to access Sibley's user terminals. An unidentified first trader could utilize one of Sibley's user terminals to input a large offer to buy or to sell a massive quantity of some traded item. Information about that "offer" would be transmitted to the local exchange to which the user terminal is attached, then to the central exchange host and then around the world to all local exchanges and all user terminals. If a second trader were to accept such offer, then how would the second trader ever track down the first trader to enforce the first trader's obligation (particularly if the market were to move against the first trader)? It defies logic to argue that security would somehow be enhanced by allowing unidentified persons to use Sibley's user terminals.

State-of-the-art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to

modify Sibley to include, in combination, all of the following: (a-1) Sibley's central exchange host's associating an identifier with an offer to buy or to sell a traded item, (a-3) Sibley's central exchange host's receiving a request that includes the identifier, (a-4) Sibley's central exchange host's receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer and (a-5) Sibley's central exchange host's sending a reply, in response to the request, that comprises a data item that concerns the offer; particularly since, as discussed above, Sibley teaches away from some of those elements.

Had claims 169 and 172 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claims are on appeal on their first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The second issue on appeal.** Claim 171 (see Summary of Invention above at second embodiment) is rejected under 35 USC 103(a) for the first time as obvious in view of Sibley. Claim 171 does not stand or fall together with claim 170, despite the Examiner's suggestion to the contrary. Claim 171 is separately patentable in view of Sibley because: (i) claim 170 concerns what information is returned and claim 171 concerns when information is returned (i.e., after a condition is satisfied); and (ii) even if it should be obvious to return information of the types identified in claim 170 (an assumption that Applicant disputes), it would still not be obvious to modify Sibley to delay (not disclosed in Sibley) a response (not disclosed in Sibley) until after an event (not disclosed in Sibley) occurs.

(a) As discussed above for the first issue on appeal at points (a-1) to (a-5), Sibley fails to disclose several of the elements of claim 169. Claim 171 depends upon claim 169 and thus requires all of those elements. In addition:

(a-6) Sibley fails to disclose a request that comprises a requirement that an event occur. By arguing in the Office Action at page 4 lines 10-11 that claim 171 "further recites

well known execution information and process of an offer”, the Examiner appears to admit that Sibley does not disclose claim 171 element (i) which recites a request that comprises a requirement that a first event occur.

(a-7) Sibley fails to disclose delaying responding until after such event occurs. By arguing in the Office Action at page 4 lines 10-11 that claim 171 “further recites well known execution information and process of an offer”, the Examiner appears to admit that Sibley does not disclose claim 171 element (ii) which recites delaying responding until after such event occurs.

(b) As discussed above in greater detail for the first issue on appeal at point (b-1), Sibley teaches away from the use of a query/response system for communicating information about offers to buy or to sell.

(c) The Examiner has failed to provide any basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

The Examiner gives no reasonable support for the Examiner’s position that it would have been obvious at the time of Applicant’s invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (a-1) Sibley’s central exchange host’s associating an identifier with an offer to buy or to sell a traded item, (a-3) Sibley’s central exchange host’s receiving a request that includes the identifier, (a-6) such request also comprising a requirement that an event occur, (a-4) Sibley’s central exchange host’s receiving such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer, (a-5) Sibley’s central exchange host’s sending a reply, in response to the request, that comprises a data item that concerns the offer and (a-6) Sibley’s central exchange host’s delaying responding until after such event occurs; particularly since, as discussed above, Sibley teaches away from some of those elements.

Had claim 171 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner’s view. However, since the claim is on appeal on its first rejection, Applicant can only argue that the rejection for obviousness fails due to the absence, in the Office Action, of any statement as to the

basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The third issue on appeal.** Claims 173, 175 and 176 (see Summary of Invention above at first embodiment) are rejected under 35 USC 103(a) for the first time as obvious in view of Sibley.

(a) Sibley fails to disclose several elements of claims 173, 175 and 176.

(a-1) Sibley fails to disclose a first disclosee's determining an identifier associated with a first offer to buy or to sell a traded item. In the Office Action at page 4 lines 13-15, the Examiner asserts that Sibley, at column 5 line 51 - column 6 line 7, teaches a first disclosee's determining a first identifier associated with a first offer to buy or to sell a traded item. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning associating an offer with an identifier. Sibley at column 6 line 1 mentions a "first code" that is associated with a particular local exchange (rather than a particular offer) and at column 6 line 3 mentions a "second code" that is associated with a particular user terminal (rather than a particular offer).

(a-2) Sibley fails to disclose sending a request. In the discussion of claims 173, 175 and 176, the Examiner makes no claim that Sibley discloses any sort of request. If the Examiner had asserted that sending a request is disclosed in Sibley, at column 5 line 51 - column 6 line 7, then Applicant would have responded that Applicant has carefully read those portions of Sibley and has been unable to locate any disclosure therein concerning any type of request.

(a-3) Sibley fails to disclose sending a request that includes the identifier. In the discussion of claims 173, 175 and 176, the Examiner makes no claim that Sibley discloses sending a request that includes the identifier. If the Examiner had asserted that sending a request that includes the identifier is disclosed in Sibley, at column 5 line 51 - column 6 line 7, then Applicant would have responded that Applicant has carefully read those portions of Sibley and has been unable to locate any disclosure therein concerning any type of request that includes any type of identifier.

(a-4) Sibley fails to disclose making such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer. By asserting in the Office Action at page 4 line 18 - page 5 line 1 that making such a request in such a manner would have been an obvious modification to Sibley, the Examiner implicitly admits that Sibley does not disclose making such a request in such a manner.

(a-5) Sibley fails to disclose receiving a reply comprising a data item that concerns the offer. In the discussion of claims 173, 175 and 176, the Examiner asserts that Sibley further teaches, at column 5 line 51 - column 6 line 7, receiving a reply that concerns the first offer. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate therein any disclosure of receiving a reply that concerns the first offer or any type of reply whatsoever.

(b) Sibley teaches away from the following elements of claims 173, 175 and 176:

(b-1) Sibley teaches away from the use of a query/response system for communicating information about offers to buy or to sell as required by claims 169 and 172. Please see the first issue on appeal at (b-1) for a detailed discussion of this issue.

(b-2) Sibley teaches away from allowing communications about offers in a manner that does not imply that such communication is from a person entitled to receive nonpublic information about such offer in the following ways:

(b-2-i) Sibley teaches that the trader at each user terminal should be identified and authenticated (column 9 lines 36-57 and in Figure 5).

(b-2-ii) Sibley teaches that all communications should be encrypted (column 8 lines 47-52).

(c) The Examiner has failed to provide any reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

In the Office Action at page 4 lines 19-21 the Examiner states without support that:

“... it would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to have included [sending the request] {although the Examiner actually wrote ‘receiving the information’, Applicant presumes that the Examiner meant to say that claim 173 element (b)(ii) was obvious} in a manner that does not imply the [request is from a person entitled to receive nonpublic information concerning the offer] {although the Examiner actually wrote ‘receiving the information’ and said nothing about entitlement to receive nonpublic information, Applicant presumes that the Examiner meant to say that claim 173 element (b)(ii) was obvious} ...”

The examiner asserts that such a modification of Sibley’s system would have been

obvious because Sibley's user terminals are identified but not necessarily the persons receiving information and such a modification would allow a trader's identity to remain anonymous for security reasons. However, as discussed in detail above in the context of the first issue on appeal at (c), (1) Sibley teaches that the person using a user terminal should be identified and verified, (2) Sibley's user terminals do not submit communications concerning offers to the central host exchange (all such communications flow through, and are submitted to the central exchange host by, a local exchange), (3) Sibley teaches away from allowing a trader's identity to remain anonymous and (4) modifying Sibley's system to allow a trader's identity to remain anonymous from Sibley's central exchange host would degrade, rather than enhance, security.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (a-1) a first disclosee's

determining an identifier associated with a first offer to buy or to sell a traded item, (a-2) sending a request, (a-3) sending a request that includes the identifier, (a-4) making such request in a manner that does not imply that the request is from a person entitled to receive nonpublic information concerning the offer and (a-5) receiving a reply comprising a data item that concerns the first offer; particularly since, as discussed above, Sibley teaches away from some of those elements.

Had claims 173, 175 and 176 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claims are on appeal on their first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The fourth issue on appeal.** Claim 174 (see Summary of Invention above at first embodiment) is rejected under 35 USC 103(a) for the first time as obvious in view of Sibley. Claim 174 is dependent upon claim 173 which is discussed at length in the context of the third issue on appeal. For all of the reasons discussed in the context of the third issue on appeal, Sibley does not suffice to justify rejection of claim 174.

Reversal is requested.

**The fifth issue on appeal.** Claims 177 and 178 (see Summary of Invention above at third embodiment) are rejected for the first time as obvious in view of Sibley. Claims 177 and 178 do not stand or fall together with claims 187 and 188, despite the Examiner's suggestion to the contrary. Claims 177 and 178 are separately patentable in view of Sibley because, even if claims 187 and 188 were obvious in view of Sibley (an assumption that Applicant disputes), it still would not be obvious to modify Sibley to include a digital signature in a communication that is secured without relying upon such digital signature.

(a) Sibley fails to disclose several elements of claims 177 and 178.

(a-1) Sibley fails to disclose associating a first offer with a first identifier.

Claim 177 element (a) and claim 178 element (a) both require associating a first offer with a first

identifier. Since the Examiner's discussion of Claims 177 and 178 makes no mention whatsoever of this requirement, Applicant presumes that the Examiner admits that this element of claims 177 and 178 is not disclosed in Sibley. Furthermore, Applicant has been unable to find any disclosure of associating an offer with an identifier in any of the portions of Sibley referred to in the Examiner's discussion of claims 177 and 178, to wit: the abstract, Figure 1, column 5 lines 14-51, column 7 line 7 - column 8 line 7, column 7 line 35 - column 10 line 66, column 8 lines 38-44 and column 9 lines 45-53. Although Sibley at column 8 lines 44-47 does disclose "... a first identification code for each local exchange ... and a second identification code for each remote terminal...", exchanges and remote terminals are not offers.

(a-2) Sibley fails to disclose a central exchange host's receiving a request for information that includes the first identifier. Claim 177 element (b) and claim 178 element (b) both require the offer matching or information publishing system's receiving a request for information that includes the first identifier. The Examiner asserts that Sibley at column 5 lines 34-51 discloses a first request for information concerning the first offer. However, Applicant has diligently examined Sibley at column 5 lines 34-51 and has been unable to discover therein any disclosure of any request or disclosure of any request that includes an identifier associated with an offer.

(a-3) Sibley fails to disclose the central exchange host's sending a reply to such a request. Claim 177 element (c) and claim 178 element (c) both require the offer matching or information publishing system's sending a reply in response to a request that includes an identifier for an offer. Applicant has been unable to find any disclosure of any sort of reply from Sibley's central exchange host in any of the portions of Sibley referred to in the Examiner's discussion of claims 177 and 178, to wit: the abstract, Figure 1, column 5 lines 14-51, column 7 line 7 - column 8 line 7, column 7 line 35 - column 10 line 66, column 8 lines 38-44 and column 9 lines 45-53.

(a-4) Sibley fails to disclose the central exchange host's sending a reply to such a request that comprises a first data item that concerns the first offer. Claim 177 element (c)(1)(A) and claim 178 element (c)(1)(A) both require that the system's reply to such request comprise a first data item that concerns the first offer. Applicant has been unable to find any disclosure of a reply that comprises such a data item in any of the portions of Sibley referred to in the Examiner's discussion of claims 177 and 178.



(a-5) Sibley fails to disclose the central exchange host's sending a reply to such a request that comprises a first data item that concerns the first offer and a digital signature sufficient to permit a recipient of the reply to determine with reasonable certainty whether the reply was sent by the system and whether the reply has been altered after being sent by the system. Claim 177 element (c)(1)(B) and claim 178 element (c)(1)(B) both require such a digital signature. The examiner's argument that adding a digital signature to Sibley would have been obvious amounts to an admission that Sibley fails to disclose such an element. In addition, Applicant has been unable to find any disclosure of a reply that comprises such a digital signature in any of the portions of Sibley referred to in the Examiner's discussion of claims 177 and 178.

(a-6) Sibley fails to disclose the central exchange host's sending such a reply in a manner that is secured without relying upon the digital signature. Claim 177 element (c)(2) and claim 178 element (c)(2) both require the offer matching or information publishing system's sending the replay in a manner that is secured without relying upon the digital signature. Since the Examiner's discussion of Claims 177 and 178 makes no mention whatsoever of this requirement, applicant presumes that the Examiner admits that this element of claims 177 and 178 is not disclosed in Sibley.

(b) Sibley teaches away from the use of a query/response system for communicating information about offers to buy or to sell as required by claims 177 and 178. Please see the first issue on appeal at (b-1) for a detailed discussion of this issue.

(c) The Examiner has failed to provide any reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

Although the Examiner does seem to suggest in the Office Action at page 7 lines 1-6 that one skilled in the art might have been motivated to use digital signatures to secure communications with Sibley's central host exchange, claim 177 element (c)(2) and claim 178 element (c)(2) negate this possible motivation by requiring that the reply be sent in a manner that is secured without relying upon the digital signature. The Examiner cites no support in any prior art for adding a digital signature to a communication that is already secured by other, independent means.

State of the art offer matching systems at the time of Applicant's invention did not

permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors to check that their brokers were providing unaltered copies of information about such investors' offers that was provided by such offer matching systems. One goal of Applicant's invention is to improve upon the state of the art by having offer matching systems digitally sign information provided to brokers so that when investors receive copies of such information they can satisfy themselves that the information is from the offer matching systems and has not been modified by the brokers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal

investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors to check that their brokers were providing unaltered copies of information about such investors' offers that was provided by such offer matching systems. One goal of Applicant's invention is to improve upon the state of the art by having offer matching systems digitally sign information provided to brokers so that when investors receive copies of such information they can satisfy themselves that the information is from the offer matching systems and has not been modified by the brokers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (a) the system's associating a first offer with a first identifier, (b) the system's receiving a request for information, the request including the first identifier, (c) in response to the request, the system's sending to a participant a reply that (1) comprises (A) a first data item that concerns the first offer and (B) a digital signature from the offer matching system that is sufficient to permit a recipient of the reply to

determine with reasonable certainty whether the reply was sent by the system and whether the reply has been altered after being sent by the system and (2) is sent to the participant in a manner that is secured without relying upon the digital signature; particularly since, as discussed above, Sibley teaches away from the use of a query/response system.

Had claims 177 and 178 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claims are on appeal on their first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The sixth issue on appeal.** Claims 187 and 188 (see Summary of Invention above at fourth embodiment) are rejected for the second time as obvious in view of Sibley. Claims 187 and 188 do not stand or fall together with claims 177 and 178, despite the Examiner's suggestion to the contrary. Claims 187 and 188 are separately patentable in view of Sibley because, even if claims 177 and 178 were obvious in view of Sibley (an assumption that Applicant disputes), it still would not be obvious to modify Sibley to have Sibley's central exchange host actually execute one offer against another to give rise to binding obligations to clear and settle trades.

(a) Sibley fails to disclose several elements of claims 187 and 188.

At page 5 lines 13-16 of the Office Action, the Examiner suggests that the disclosees of claims 187 and 188 correspond to Sibley's investors (who interact with directly Sibley's user terminals).

At page 5 lines 15-16 of the Office Action, the Examiner suggests that the participants of claims 187 and 188 correspond to Sibley's local exchanges.

At page 5 line 19 of the Office Action, the Examiner suggests that the offer matching system of claims 187 and 188 corresponds to Sibley's central exchange host.

(a-1) Sibley fails to disclose Sibley's central exchange host's executing a first offer at least in part against a second offer. Claim 187 step (d) requires "the offer matching system's executing the first offer at least in part against the second offer". The application at

page 1 lines 20-21 expressly defines “execute” to mean “give rise to a binding obligation to clear and settle a trade”.

At page 6 lines 14-15 of the Office Action, the Examiner asserts (without citing any relevant language in Sibley) that Sibley’s “central exchange host completes the transaction based on matches found for that particular trade”. Applicant has diligently searched Sibley and has been unable to locate disclosure suggesting that Sibley’s central exchange host can execute one offer against another to create an obligation to clear and settle a trade that is binding upon Sibley’s traders. In fact, as discussed below at (b-1), Sibley teaches away from having Sibley’s central exchange host (which the Examiner has suggested corresponds to the offer matching system of claim 187) complete transactions based on matches found between buy and sell orders.

At page 16 lines 15-20 of the Office Action, the Examiner asserts that the central exchange host’s giving rise to a binding obligation to clear and settle a trade are not recited in the “rejected claims” (without specifying which claims are then being discussed) and cites a case for the proposition that limitations from the specification are not to be read into the claims. However, it is well settled that the Applicant is his own lexicographer. Thus, the express limitation in claim 187 step (d) of “the offer matching system’s executing the first offer at least in part against the second offer” must be interpreted as a limitation requiring that the offer matching system give rise to a binding obligation to clear and settle the first offer at least in part against the second offer. The Examiner has failed to cite any language in Sibley that teaches having Sibley’s central exchange host execute a first offer at least in part against a second offer in a manner that gives rise to a binding obligation to clear and settle a trade.

At page 16 line 21 - page 17 line 2 of the Office Action, the Examiner asserts without citing any portion of Sibley that Sibley’s central exchange host has a function of executing the trade. In light of the definition of “execute” in the application, this is equivalent to an assertion that Sibley’s central exchange host has a function of giving rise to a binding obligation to clear and settle a trade. Applicant has diligently reviewed Sibley and has been unable to find in Sibley any suggestion that Sibley’s central exchange host would ever give rise to a binding obligation to clear and settle a trade by matching offers. Sibley at column 5 lines

3-26 teaches instead that the central exchange host should merely forward information about offers and that traders at user terminals should have the freedom to accept or to reject offers (thereby creating an obligation to clear and settle a trade).

At page 16 line 22 - page 7 line 2 of the Office Action, the Examiner seems to argue that Sibley's central exchange host must execute trades (i.e., take actions that give rise to binding obligations to clear and settle trades) because otherwise there would be no "need" for Sibley's central exchange host. However, Sibley discloses at least two functions performed by the central exchange host other than executing trades, to wit: facilitating communications among local exchanges (e.g., abstract, column 5 lines 3-21 and column 7 line 60 - column 8 line 18) and storing trading data received from the local exchanges (column 5 lines 66-68).

(a-2) Sibley fails to disclose executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host. Claim 187 step (d) requires executing offers in accordance with a "set of rules that govern the operation of the offer matching system". At page 6 lines 15-18 of the Office Action, the Examiner asserts that it would have been obvious to add to Sibley's central host exchange a set of rules that govern the operation Sibley's central host exchange with respect to offer matching, thereby admitting that the Sibley does not disclose such a set of rules

(a-3) Sibley fails to disclose a first request for information concerning the first offer. Claim 187 step (e) requires "communicating from the first disclosee to the first participant a first request for information concerning the first offer". At Page 6 lines 2-5 of the Office Action, the Examiner suggests that Sibley discloses such a request at column 5 lines 34-51. However, Sibley at column 5 lines 34-51 discloses sending trading data (rather than requests) to a first exchange (and thence to the central exchange host and thence to a second local exchange). Despite diligent review of the cited lines, Applicant has been unable to find any disclosure of sending any type of request at Sibley column 5 lines 34-51. While line 35 does mention a "desire to receive" and line 36 does mention "communicate," Applicant has been unable to find any suggestion of communicating a request for information rather than passively receiving information sent without request. In paper number 34 (the "Substantive

Response”) Applicant asked the Examiner to more specifically point out where Sibley discloses such a first request. The Examiner has failed to provide a more specific citation.

(a-4) Sibley fails to disclose a second request in response to a first request. Claim 187 step (f) requires “in response to the first request, communicating from the first participant to the offer matching system a second request for information concerning the first offer”. At Page 5 lines 7-10 of the Office Action, the Examiner suggests that Sibley at column 5 lines 14-51 discloses such a second request in response to a first request. After diligent study of the cited lines, Applicant has been unable to find therein any disclosure of such a second request. The one mention of a request that Applicant was able to find in the cited lines is at column 5 lines 15-17, which disclose a local exchange’s relaying a request to each of its members, rather than a member’s relaying a request to a central exchange host. In the Substantive Response, Applicant asked the Examiner to more specifically point out where Sibley discloses a second request of the type required by clause (f) of Claim 187. The Examiner has failed to provide a more specific citation.

(a-5) Sibley fails to disclose communicating a first response from the offer matching system to the first disclosee. Claim 187 step (g) requires “in response to the second request, communicating from the offer matching system to the first disclosee a first response.” At page 6 line 21 - page 7 line 1 of the Office Action, the Examiner suggests that this requirement is disclosed in Sibley at column 7 line 35 - column 10 line 66. After diligent study, Applicant has been unable to find in the cited lines any disclosure of communicating any sort of response from a central exchange host to a local exchange. In the Substantive Response, Applicant asked the Examiner to more specifically point out where in the cited material (which spans 4 columns) Sibley discloses communicating such a response in response to such a request. The Examiner has failed to provide a more specific citation.

(a-6) Sibley fails to disclose any digital signature. Claim 187 step (g) requires that the response comprise “a first digital signature from the offer matching system”. The Application at Page 29 line 25 - Page 30 line 8 explains how including a digital signature in such a response certifies that other information contained in such response was provided by the offer matching system and has not been changed by someone else. Thus, the function of such

a digital signature would be to protect the first disclosee rather than to protect the offer matching system.

(a-7) Sibley fails to disclose the first participant's relaying the first data item and the first digital signature to the first disclosee. Claim 188 requires that step (g) of Claim 187 be performed by "communicating from the offer matching system to the first participant the first response and communicating from the first participant to the first disclosee a second response comprising the first data item and the first digital signature." The Examiner has not stated where that requirement is disclosed in Sibley, nor has the Examiner stated that this requirement is obvious.

(b) Sibley teaches away from claims 187 and 188.

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). Sibley at column 5 lines 3-26 teaches that offers should be executed at a local exchange or a user terminal connected to a local exchange, rather than at Sibley's central exchange. Sibley teaches communicating information about a first offer from a member to a first local exchange (Sibley at column 5 lines 3-10), from the first local exchange to a central host exchange (Sibley at column 5 lines 9-12), from the central host exchange to a second local exchange (Sibley at column 5 lines 12-14), and from the second local exchange to the user terminals of the members of the second local exchange (Sibley at column 5 lines 15-17). Sibley also teaches that it is the individual members of the second local exchange (rather than the central host exchange) that will decide whether to trade with the member associated with the first local exchange that first communicated information about the first offer (Sibley at column 5 lines 17-21). Thus, Sibley teaches that the actions performed by the central host exchange should not give rise to binding obligations to clear and settle a trade (since Sibley teaches that, even after the central host exchange has relayed information, the members of the second local exchange should remain free to trade or to not trade). In contrast, clause (d) of Claim 187 requires that the offer matching system execute the first offer against a second offer and the application expressly defines "execute" to mean "give rise to a binding obligation to clear and settle a trade".



Furthermore, consider how modifying Sibley's central exchange host so that it would automatically execute a buy offer against the best available sell offer might unpleasantly surprise one of Sibley's traders. Assume that (i) a buying trader is interested in buying some quantity of a first commodity, (ii) because of bad experiences in the past, the buying trader is unwilling to trade with traders associated with user terminals associated with an unwanted local exchange, (iii) consequently, the buying trader configures his user terminal to ignore (and not display) offers and trading information that originate at user terminals associated with the unwanted local exchange and to not route offers and acceptances to the unwanted local exchange or user terminals associated with the unwanted local exchange, (iv) at a first time, Sibley's central host exchange is aware of an unwanted offer to sell the first commodity for an unwanted sell price where the unwanted offer is from an unwanted seller associated with an unwanted user terminal that is associated with the unwanted exchange, (v) at the first time, the buying trader's user terminal displays information about a desired offer to sell the first commodity for a desired sell price where the desired offer is from a desired seller associated with a desired user terminal associated with a local exchange that is not the unwanted local exchange, (vi) at the first time, the unwanted sell price is less than the desired sell price (i.e., the buying trader wants to pay a premium to avoid dealing with a seller from the unwanted local exchange), (vii) at the first time, the buying trader submits to the buying trader's user terminal an offer to buy the first commodity from the desired seller for the desired sell price. If Sibley's central exchange host operates as taught by Sibley, the buying trader will end up obligated to buy the first commodity from the desired seller. If Sibley were modified to include automatic matching and execution of compatible buy and sell offers, then the buying trader would end up obligated to buy the first commodity from the unwanted seller (albeit possibly for the lower unwanted price). A buying trader that configured his user terminal to avoid thinking about or dealing with the unwanted local exchange would probably be unhappy with such a result. Thus, by teaching that each trader should be able to include or exclude each local exchange, Sibley teaches away from having Sibley's central exchange host automatically execute buy offers against the lowest priced sell offer available from any local exchange.

(b-2) Sibley teaches away from executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host in two ways:

(b-2-i) First, as discussed above, Sibley teaches away from having the central host exchange operate as an offer matching system that executes (as defined in the application) one offer against another.

(b-2-ii) Second, Sibley teaches that each of Sibley's local exchanges (where trades are actually executed in Sibley's system) should have trading rules that permit any trader terminal on one local exchange to trade with any trader terminal on another local exchange (See Sibley at column 5, lines 52-57), thereby eliminating any need for the central host exchange to have trading rules of its own that govern the execution of offers.

(b-3) Sibley teaches away from having Sibley's central exchange host use a query/response protocol to communicate information about offers. Please see the first issue on appeal at (b-1) for a detailed discussion of this point.

(b-4) Sibley teaches away from the use of digital signatures by teaching that "all of the data being received or transmitted will be encoded or scrambled", which would obviate the need for using a digital signature to detect responses that are not from the offer matching system or have been tampered with.

(c) The Examiner has failed to provide any basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

The Examiner has asserted (Office Action at page 6 lines 15-17) that if Sibley should have taught having Sibley's central exchange host execute offers against each other (which assumption is false), then it would have been obvious to have rules that govern the offer matching and execution operations of Sibley's central exchange host. However, Sibley does not teach having Sibley's central exchange host execute offers and thus the Examiner's assertion is irrelevant. In fact, as discussed above at (a-1), Sibley teaches away from having Sibley's central exchange host execute offers and give rise to binding obligations to clear and settle trades. Thus, the Examiner's assertions about what might have been obvious in circumstances that do not exist are irrelevant to determining whether claims 187 and 188 are

obvious in view of Sibley.

The Examiner has asserted (Office Action at page 7 lines 4-6) that it would have been obvious to have included a digital signature. At page 7 lines 3-8 of the Office Action, the Examiner suggests that because Sibley teaches at column 8 lines 38-44 and column 9 lines 45-53 that the central exchange host can restrict security by a variety of means, then it would have been obvious to have included requesting a first digital signature in order to achieve the advantage of having the central exchange host restrict security. Applicant contends that adding a digital signature would not have been obvious because Sibley teaches away from using digital signatures by teaching the use of encryption (which has all of the authentication benefits of digital signatures plus the benefit of preventing unauthorized persons from viewing communications) and because using a digital signature in communications sent by the central exchange host would protect recipients of such communications (by enabling recipients to detect responses that are not from the offer matching system or have been tampered with) but would provide no security protection whatsoever for the offer matching system (i.e., the use of a digital signature on responses sent by the offer matching system, rather than encryption, would provide no assurances whatsoever to the offer matching system that the responses would be read only by authorized recipients).

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching

system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors to check that their brokers were providing unaltered copies of information about such investors' offers that was provided by such offer matching systems. One goal of Applicant's invention is to improve upon the state of the art by having offer matching systems digitally sign information provided to brokers so that when investors receive copies of such information they can satisfy themselves that the information is from the offer matching systems and has not been modified by the brokers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

To reject claims 187 and 188 as obvious in view of Sibley requires concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (1) executing offers against each other in Sibley's central host exchange so as to give rise to binding obligations to clear and settle trades, (2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (3) communicating a first request for information concerning the first offer, (4) communicating a second request in response to the first request, and (5) communicating a first response from Sibley's central exchange host that comprises a data item responsive to the first request and a first digital signature from the offer matching system; even though, as discussed above at (c), Sibley teaches away from several of those elements.

The Examiner has never offered any support for the proposition that modifying Sibley to include that combination of features would have been obvious at the time of Applicant's invention. The Examiner has, instead, relied upon the erroneous view that the several missing elements other than the set of rules and the digital signature is taught by Sibley.

If the Examiner had at any time argued that modifying Sibley to include the combination of all missing elements were obvious, then the Applicant would have had an opportunity to ask, in view of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for such a view. Since the Examiner has never made such an assertion, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any statement as to the basis for providing the combination of elements that are missing in the reference.

Reversal is requested.

**The seventh issue on appeal.** Claims 179 and 181 (see Summary of Invention above at fifth embodiment) are rejected for the first time as obvious in light of Sibley. Claims 179 and 181 do not stand or fall together with claims 182 and 183, despite the Examiner's suggestion to the contrary. Claims 182 and 183 are separately patentable in view of Sibley for the reasons set forth below for the eighth issue on appeal. Thus, even if claims 179 and 181 were obvious in view of Sibley (an assumption Applicant disputes), claims 182 and 183 still would not be obvious in view of Sibley.

(a) Sibley fails to disclose several elements of claims 179 and 181. Elsewhere in the Office Action, the Examiner has suggested that the offer matching or information publishing system of the claims corresponds to Sibley's central exchange host. Claims 179 is directed to the operation of an offer matching or information publishing system and claim 181 is directed to the features of such a system. Thus it is important to consider for each element of claims 179 and 181 whether Sibley teaches that such element be performed by, or present in, Sibley's central exchange host.

(a-1) Sibley fails to disclose associating a first offer with a first identifier. In the Office Action at page 7 lines 8-9, the Examiner asserts that Sibley teaches, at column 5 line 51 - column 6 line 7, associating a first offer to buy or to sell a traded item with a first identifier. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning associating an offer with an identifier. Sibley at column 6 line 1 mentions a "first code" that is associated with a particular local exchange (rather than a particular offer) and at column 6 line 3 mentions a "second code" that is associated with a particular user terminal (rather than a particular offer).

(a-2) Sibley fails to disclose publishing any information. As discussed below at (b-1), Sibley teaches away from publishing (i.e., making available to the public) any information. In addition, Applicant has diligently searched Sibley and has been unable to discover any disclosure in Sibley of publishing any information.

(a-3) Sibley fails to disclose publishing any information in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer. Applicant has diligently searched Sibley and has been unable to discover any disclosure in Sibley of publishing any information, including without limitation publication in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about any offer.

(a-4) Sibley fails to disclose publishing a data packet that comprises both the first identifier and some other data item concerning the first offer. Applicant has diligently searched Sibley and has been unable to discover any disclosure in Sibley of Sibley's central exchange host's publishing any information, including without limitation publication of such a data packet.

(b) Sibley teaches away from claims 179 and 181 as follows:

(b-1) Sibley teaches away from publishing any information. The Application does not expressly define "publish". According to Merriam-Webster's Collegiate Dictionary on line (available at <http://www.m-w.com/> as of 2001.10.28), the word "publish", when used in the transitive sense as it is in claim 124 (191), means: 1a: to make generally known; 1b: to make public announcement of; 2a: to disseminate to the public; 2b: to produce or release for distribution; specifically: PRINT; 2c: to issue the work of (an author).

(b-1-i) Sibley teaches that all communications should be encrypted. Sibley at column 8 lines 47-52, in the context of a discussion of Sibley's Figure 4 (which concerns the internal structure of Sibley's user terminals), teaches that "all of the data being received or transmitted will be encoded or scrambled so that it has to be either decrypted (descrambled) or encrypted depending upon whether it is being sent or received." Thus, while Sibley's use of a satellite to transmit data from a central exchange host to user terminals might at first blush suggest a form of publication, Sibley's teaching that all data be encrypted would deny persons without access to one of Sibley's user terminals the ability to learn the contents of such transmissions.

(b-1-ii) Sibley also teaches that the trader at each user terminal should be identified and authenticated. Sibley teaches at column 9 lines 36-57 and in Figure 5 that a trader should be required to input the trader's first name, last name and access code before being allowed to utilize a user terminal. Sibley at column 9 lines 47-48 even suggests using retinal and/or finger print verification to further secure access to user terminals. Thus, Sibley teaches away from allowing unauthorized members of the public to utilize Sibley's user terminals to gain access to information that Sibley's central exchange host transmits to Sibley's user terminals.

(c) The Examiner fails to provide a reasonable basis for a view as to what one skilled in the art would do at the time of the Applicant's invention. The Examiner's "argument" at page 7 lines 15-21 seems to have the following structure: it would have been obvious to modify the reference to include each detail of claim 179 because modifying the reference in that way would achieve some identified result. The Examiner does not address whether such result is desirable, whether such result was achieved in other ways at the time of Applicant's invention or whether such result has ever before been achieved in the manner set forth in claim 179.

The Examiner seems to assume, without support, that in the context of Sibley's central exchange host a person of ordinary skill in the art at the time of Applicant's invention would have wanted to allow "members of the public to have information about the items that are being traded." [emphasis added] (See Office Action at page 7 lines 20-21)

The Examiner seems to assume, without support, that the obvious method for achieving such a result at the time of Applicant's invention would have been to modify Sibley's central exchange host so that it would publish a data packet that comprises both an offer identifier and data about the offer. Applicant respectfully submits that if (for purposes of argument only) one skilled in the art at the time of Applicant's invention were to ignore Sibley's express teaching away from publishing any information, then a more obvious method of satisfying the Examiner's desire to allow members of the public to have information about the items that are being traded would be to modify Sibley's central exchange host so that it would publish information that discloses for each traded item either (i) the price and quantity of recent trades of such item (like a stock ticker for an exchange) or (ii) the prices and quantities at which traders are currently offering to buy or to sell such item (like the bid/ask displays for over-the-counter stocks); without, in either case, wasting bandwidth by also publishing information about offer identifiers that communicate information about particular offers but communicate no

information about the items that are being traded. In contrast, claim 179 element (b) requires publishing a data packet that contains both a data item about an offer that is not the offer identifier (e.g., price, quantity, etc.) AND the offer identifier.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by monitoring information published by such systems. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to track general trading activity by publishing something like a stock ticker that disclosed for each completed trade the item traded, the quantity traded and the price, such systems did not disclose information that would identify which buy offer or which sell offer resulted in such trade. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded on the New York Stock Exchange) would not be able to determine from watching the ticker which, if any, of the reported trades arose from executions of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art stocker tickers by including offer identifiers in published trade reports so that investors and members of the public will gain the ability to track particular offers using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that adding the combination of all the following elements to Sibley would have been obvious at the time of Applicant's invention to one skilled in the art: (a) Sibley's central host exchange associating a first offer with a first identifier and (b) Sibley's central exchange host publishing, in a manner that permits receipt and use by members of the public with no right to receive nonpublic information about the first offer, a data packet that comprises the first identifier and a data item concerning the first offer, where the data item is not the first identifier.

Had claims 179 and 181 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*,



165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claims are on appeal on their first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The eighth issue on appeal.** Claims 182 and 183 (see Summary of Invention above at sixth embodiment) are rejected for the first time as obvious in view of Sibley. Claims 182 and 183 do not stand or fall together with claims 179 and 181, despite the Examiner's suggestion to the contrary. Claims 182 and 183 are separately patentable in view of Sibley because, even if claims 179 and 181 were obvious in view of Sibley (an assumption that Applicant disputes): (i) it still would not be obvious to modify Sibley so that a trader of Sibley would not know that a data item concerns a first offer until after the trader receives the response, (ii) it still would not be obvious to modify Sibley so that the first disclosee would not know that the data items concerns the first offer until after the trader receives the response, (iii) it still would not be obvious to modify Sibley so that a trader of Sibley would detect that the data packet includes the first identifier, and (iv) it still would not be obvious to modify Sibley so that one of Sibley's traders would gain possession of information which discloses that the first item concerns the first offer.

(a) Sibley fails to disclose several elements of claims 182 and 183. Elsewhere in the Office Action, the Examiner has suggested that the offer matching or information publishing system of other claims corresponds to Sibley's central exchange host. Thus, for each element of claims 182 and 183 that mentions the "system" one should consider what Sibley teaches about the central exchange host.

(a-1) Sibley fails to disclose a first disclosee's determining a first identifier associated with a first offer to buy or to sell a traded item. In the Office Action at page 7 lines 8-9, the Examiner asserts that Sibley teaches, at column 5 line 51 - column 6 line 7, associating a first offer to buy or to sell a traded item with a first identifier. However, Applicant has carefully read the portions of Sibley cited by the Examiner and has been unable to locate any disclosure therein concerning associating an offer with an identifier. Sibley at column 6 line 1 mentions a "first code" that is associated with a particular local exchange (rather than a particular offer) and at column 6 line 3 mentions a "second code" that is associated with a particular user terminal

(rather than a particular offer).

(a-2) Sibley fails to disclose a first disclosee's receiving a data packet from Sibley's central exchange host in a manner that would permit members of the public with no right to receive nonpublic information about the first offer to receive and to use such data packet. The Examiner seems to admit that this element of Claim 182 is not disclosed in Sibley because the Examiner cites no language in Sibley that discloses this element and the Examiner seems to argue in the Office Action at page 7 lines 13-21 that this element is obvious.

(a-3) Sibley fails to disclose any data packet that comprises both a first identifier and another data item that concerns the first offer. The Examiner seems to admit that this element of Claim 182 is not disclosed in Sibley because the Examiner cites no language in Sibley that discloses this element and the Examiner seems to argue in the Office Action at page 7 lines 13-21 that this element is obvious.

(a-4) Sibley fails to disclose a first disclosee that does not know that the data item concerns the first offer until after the first disclosee receives the data packet. The Examiner seems to admit that this element of Claim 182 is not disclosed in Sibley because the Examiner cites no language in Sibley that discloses this element and the Examiner seems to argue in the Office Action at page 7 lines 13-21 that this element is obvious.

(a-5) Sibley fails to disclose a first disclosee's detecting that a data packet includes an identifier associated with an offer. The Examiner seems to admit that this element of Claim 182 is not disclosed in Sibley because the Examiner cites no language in Sibley that discloses this element and the Examiner seems to argue in the Office Action at page 7 lines 13-21 that this element is obvious.

(b) Sibley teaches away from claims 182 and 183 as follows:

(b-1) Sibley teaches away from a first disclosee's receiving a data packet from Sibley's central exchange host in a manner that would permit members of the public with no right to receive nonpublic information about an offer to receive and to use such data packet in the following two ways:

(b-1-i) Sibley teaches that all communications with the central exchange host should be encrypted. See Sibley at column 8 lines 47-52.

(b-1-ii) Sibley teaches that the trader at each user terminal should be identified and authenticated. See Sibley at column 9 lines 36-57 and Figure 5.

(c) The Examiner fails to provide a reasonable basis for a view as to what one skilled in the art would do at the time of the Applicant's invention. The Examiner's "argument" at page 7 lines 15-21 seems to have the following structure: it would have been obvious to have modified the reference to include each detail of claim 182 because modifying the reference in that way would achieve some identified result. The Examiner does not address whether such result is desirable, whether such result was achieved in other ways at the time of Applicant's invention or whether such result has ever before been achieved in the manner set forth in claim 179.

The Examiner seems to assume, without support, that in the context of Sibley's central exchange host a person of ordinary skill in the art at the time of Applicant's invention would have wanted to allow "members of the public to have information about the items that are being traded." [emphasis added] (See Office Action at page 7 lines 20-21)

The Examiner seems to assume, without support, that the obvious method for achieving such a result at the time of Applicant's invention would have been to modify Sibley's central exchange host so that it would publish a data packet that comprises both an offer identifier and data about the offer and to have a member of the public detect that the data packet includes the first offer identifier. Applicant respectfully submits that if (for purposes of argument only) one skilled in the art at the time of Applicant's invention were to ignore Sibley's express teaching away from publishing any information, then a more obvious method of satisfying the Examiner's desire to allow members of the public to have information about the items that are being traded would be to modify Sibley's central exchange host so that it would publish information that discloses for each traded item either (i) the price and quantity of recent trades of such item (like a normal stock ticker) or (ii) the prices and quantities at which traders are currently offering to buy or to sell such item (like an over-the-counter stock bid/ask display); without, in either case, wasting bandwidth by also publishing information about offer identifiers that communicate information about particular offers but communicate no information about the items that are being traded. In contrast, claim 179 element requires [element (b)(i)] publishing a data packet that contains both [element (b)(i)] the offer identifier and [element (b)(ii)] another data item about the offer, and [element (b)(iv)] that until receiving the data packet, the first disclosee did not know that the data item concerns the first offer and [element (c)] the first disclosee's detecting that the data packet includes the first identifier, whereby the first disclosee gains possession of information which discloses that the data item concerns the first offer, not the

first traded item.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by monitoring information published by such systems. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to track general trading activity by publishing something like a stock ticker that disclosed for each completed trade the item traded, the quantity traded and the price, such systems did not disclose information that would identify which buy offer or which sell offer resulted in such trade. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded on the New York Stock Exchange) would not be able to determine from watching the ticker which, if any, of the reported trades arose from executions of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art stocker tickers by including offer identifiers in published trade reports so that investors and members of the public will gain the ability to track particular offers using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that adding the combination of all the following elements to Sibley would have been obvious at the time of Applicant's invention to one skilled in the art: (a) an unauthorized member of the public's determining a first identifier associated with a first offer, (b)(i) the unauthorized member of the public's receiving a data packet from Sibley's central host exchange in a manner that permits the unauthorized member of the public to use such data packet, (b)(ii) the data packet's comprising the first offer identifier, (b)(iii) the data packet's comprising another data item that concerns the first offer, (b)(iv) until receiving the data packet, the unauthorized member of the public's not knowing that the data item concerns the first offer and (c) the unauthorized member of the public's detecting that the data packet includes the first offer identifier.

Had claims 182 and 183 been rejected for the first time in other than a final

action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claims are on appeal on their first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The ninth issue on appeal.** Claim 180 (see Summary of Invention above at fifth embodiment) is rejected for the first time as obvious in view of Sibley. Claim 180 is dependent upon claim 179 which is discussed at length in the context of the seventh issue on appeal. For all of the reasons discussed in the context of the seventh issue on appeal, Sibley does not suffice to justify rejection of claim 180.

Reversal is requested.

**The tenth issue on appeal.** Claim 184 (see Summary of Invention above at seventh embodiment) is rejected for the first time as obvious in view of Sibley. However:

(a) Sibley fails to disclose several elements of the claim. Elsewhere in the Office Action, the Examiner has suggested the following correspondences between items in the claims and items in Sibley:

the offer matching system of the claims = Sibley's central exchange host;  
the participants of the claims = Sibley's local exchanges

At page 8 of the Office Action the Examiner fails to suggest what item(s) in Sibley might correspond to either the "agents" that the Examiner mentions in the Office Action at page 8 line 10 or to the first monitor that the Examiner mentions in the Office Action at page 8 line 13.

(a-1) Sibley fails to disclose a first monitor. By failing even to assert that any item disclosed in Sibley corresponds to a first monitor, the Examiner has implicitly admitted that Sibley fails to disclose a first undefined monitor. The Applicant challenges the Examiner to cite any disclosure in Sibley of an item that the Examiner believes corresponds to the first monitor of claim 184.

(a-2) Sibley fails to disclose Sibley's central exchange host storing an association among a first local exchange and the first monitor. By asserting in the Office Action

at page 8 lines 8-11 that it is obvious for an offer matching system to store such an association, the Examiner is implicitly admitting that Sibley fails to disclose Sibley's central exchange host's storing such an association.

(a-3) Sibley fails to disclose Sibley's central exchange host's determining that a first description is from a particular local exchange. The Examiner does not cite any portion of Sibley as disclosing such a determination by Sibley's central exchange host and thus implicitly admits that Sibley fails to disclose such a determination. The Applicant challenges the Examiner to cite a portion of Sibley that discloses Sibley's central exchange host's determining that a first description is from a first local exchange, not merely disclosure of Sibley's central exchange host's storing and broadcasting information without analysis.

(a-4) Sibley fails to disclose Sibley's central exchange host's receiving a message from a first monitor that approves a first offer. By asserting in the Office Action at page 8 lines 13-14 that receiving such a message would have been obvious, the Examiner implicitly admits that Sibley fails to disclose receiving such a message from a first undefined monitor.

(a-5) Sibley fails to disclose Sibley's central exchange host's executing the first offer at least in part against a second offer only after Sibley's central exchange host receives a message that approves the first offer. The Examiner does not cite any portion of Sibley as disclosing Sibley's central exchange host's executing any offer or delaying the execution of any offer until after Sibley's central exchange host receives a message that approves the first offer and thus the Examiner implicitly admits that Sibley fails to disclose such conditionally delayed execution. The Applicant challenges the Examiner to cite a portion of Sibley that discloses such conditionally delayed offer execution by Sibley's central exchange host.

(b) Sibley teaches away from claim 184 in the following ways:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). See the detailed discussion above in the context of the sixth issue on appeal at (b-1).

(c) The Examiner has failed to provide any reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

The Examiner asserts without any reasonable support that:

(i) it is obvious and well known in the trading business for participants (which apparently the Examiner believes corresponds to Sibley's local exchanges) to have agents acting on their behalf (Office Action at page 8 lines 8-11), however the Examiner never even suggests what relevance such agents might have to either Sibley's local exchanges or the monitors of claim 184;

(ii) it is obvious and well known in the trading business for an offer matching system (which apparently the Examiner believes corresponds to Sibley's central exchange host) to store the association between local exchanges and their agents (Office Action at page 8 lines 9-11), however the Examiner never even suggests what relevant storing an association between local exchanges and their agents might have to storing an association between a local exchange and any sort of monitor;

(iii) it would have been obvious to modify Sibley to include storing an association among a first local exchange and a first undefined monitor; and

(iv) it would have been obvious to modify Sibley to include receiving from the first monitor a message that approves the first offer.

The Examiner does not even assert, much less present evidence, that:

(i) it would have been obvious to modify Sibley's central exchange host so that it would refuse to execute the first offer until the approval is received or

(ii) it would have been obvious to modify Sibley's central exchange host so that after receiving the approval Sibley's central exchange host would execute the first offer at least in part.

State of the art offer matching systems at the time of Applicant's invention did not contemplate that a participant (i.e., trader) might submit an offer to the offer matching system before all required approvals had been obtained. Consequently, such offer matching systems did not include a means for holding submitted offers in suspension until some other person or system approved such offers. One goal of Applicant's invention is to improve upon state of the art offer matching systems by allowing an offer matching system to be configured so that a monitor (e.g., a clearing broker, a lender or a guarantor) must approve offers submitted by a particular participant before the offer matching system will attempt to execute

such offers. One advantage of having an offer matching system enforce this rule is that it avoids a requirement that the participant and/or the monitor understand and trust the computer systems of the other. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (a-1) a first monitor, (a-2) Sibley's central exchange host storing an association among a first local exchange and the first undefined monitor, (a-3) Sibley's central exchange host's determining that a first description is from a particular local exchange, (a-4) Sibley's central exchange host's receiving a message from a first monitor that approves a first offer, and (a-5) Sibley's central exchange host's executing the first offer at least in part against a second offer only after Sibley's central exchange host receives a message that approves the first offer; particularly since, as discussed above, Sibley teaches away from Sibley's central exchange host executing any offers.

Had claim 184 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claim is on appeal on its first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The eleventh issue on appeal.** Claim 189 (see Summary of Invention above at eighth embodiment) is rejected as obvious in view of Sibley. Elsewhere in the Office Action the Examiner has suggested that the disclosee of the claims corresponds to Sibley's traders that use Sibley's trading terminals.

(a) As discussed above for the sixth issue on appeal at points (a-1) to (a-6), Sibley fails to disclose several of the elements of claim 187. Claim 189 depends upon claim 187 and thus requires all of those elements (but not the element discussed at point (a-7) which applies only to claim 188). In addition:



(a-8) Sibley fails to disclose a request that comprises a requirement that an event occur. In the Office Action at page 8 lines 15-20 the Examiner fails to cite any disclosure in Sibley that discloses such a request. Applicant has diligently examined Sibley and has found no disclosure of any such request. In fact, Sibley teaches away from a query/response communications protocol. Applicant challenges the Examiner to cite any disclosure in Sibley of any such request. Further, by asserting in the Office Action at page 8 lines 17-19 that it would have been obvious to modify Sibley's system to include responding to a request when a change in the offer has taken place, the Examiner implicitly admits that Sibley does not disclose such a request.

(a-9) Sibley fails to disclose delaying responding until after such event occurs. By asserting in the Office Action at page 8 lines 17-19 that it would have been obvious to modify Sibley's system to include responding to a request when a change in the offer has taken place, the Examiner implicitly admits that Sibley does not disclose delaying responding until after the event in the request occurs.

(b) As discussed above in greater detail for the sixth issue on appeal at point (b), Sibley teaches away from the following elements of claim 187 from which claim 189 depends:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade).

(b-2) Sibley teaches away from executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host in two ways:

(b-2-i) First, Sibley teaches away from having the central host exchange operate as an offer matching system that executes (as defined in the application) one offer against another.

(b-2-ii) Second, Sibley teaches that each of Sibley's local exchanges (where trades are actually executed in Sibley's system) should have trading rules that permit any trader terminal on one local exchange to trade with any trader terminal on another local exchange (See Sibley at column 5, lines 52-57), thereby eliminating any need for the central host exchange to have trading rules of its own that govern the execution of offers.

(b-3) Sibley teaches away from having Sibley's central exchange host use a query/response protocol to communicate information about offers. Please see the first issue on

appeal at (b-1) for a detailed discussion of this point.

(b-4) Sibley teaches away from the use of digital signatures by teaching that “all of the data being received or transmitted will be encoded or scrambled”, which would obviate the need for using a digital signature to detect responses that are not from the offer matching system or have been tampered with.

(c) The Examiner has failed to provide any reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

Please review the discussion above for the sixth issue on appeal at (c) concerning claim 187 from which claim 189 depends.

In the Office Action at page 8 lines 15-20, the Examiner repeats verbatim the discussion presented previously by the Examiner for deleted claim 54. In the Substantive Response, in the context of discussing claim 189 (formerly known as claim 54), Applicant’s attorney disagreed with the Examiner’s contention that making the timing of the response contingent upon the occurrence of an event specified in the request is obvious, and motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) Applicant’s attorney challenged that view and asked whether the Examiner can show support for that view. The examiner failed to show any support for that view. Thus Applicant argues that the rejection for obviousness fails due to the absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

In the Office Action, the Examiner bases the Examiner’s assertion that making the timing of a response contingent upon the occurrence of an event specified in a request is obvious upon the following premises (which Applicant disputes):

First, Applicant disputes the Examiner’s premise at page 8 lines 15-17 that Sibley’s traders (which the Examiner has suggested elsewhere in the Office Action correspond to the disclosees of the claims) obtain information concerning the status of a first offer from the local exchange when a change in the offer has taken place. The Examiner has cited no portions of Sibley which disclose Sibley’s traders obtaining such information from the local exchange. Applicant challenges the Examiner to provide a specific citation to Sibley.

Second, Applicant disputes the Examiner’s assumption that it would have

been obvious to modify Sibley in a manner designed to save time by only responding when changes have occurred. In contrast, Sibley expressly teaches away from limiting the information sent to Sibley's user terminals. For example, (i) Sibley at column 2 lines 15-40 teaches having Sibley's central exchange host broadcast information about all offers to all trader's terminals and having each trader's terminal sort out and display the information of interest to such trader (column 2 lines 23-28), (ii) Sibley at column 7 line 61 - column 8 line 7 teaches transmitting information "in bulk" from the central host exchange to all user terminals and then displaying on each user terminal the information that the applicable user requests from his terminal and (iii) Sibley at column 10 lines 17-31 teaches having each user terminal receive an "unmanageable" total volume of information that is transformed by the intelligent terminal into a concise subset by filtering out the information that the user has selected through his interactions with the user terminal.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel

feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors to check that their brokers were providing unaltered copies of information about such investors' offers that was provided by such offer matching systems. One goal of Applicant's invention is to improve upon the state of the art by having offer matching systems digitally sign information provided to brokers so that when investors receive copies of such information they can satisfy themselves that the information is from the offer matching systems and has not been modified by the brokers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: (a-1) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-3) a first request for information concerning the first offer, (a-4) a second request in response to a first request, (a-5) communicating a first response from the offer matching system to the first disclosee, (a-6) any digital signature, (a-8) a request that comprises a requirement that an event occur, and (a-9) delaying responding until after such event occurs; particularly since, as discussed above, Sibley teaches away from some of those elements.

In the Substantive Response, in the context of discussing claim 189 (formerly known as claim 54), Applicant's attorney disagreed with the Examiner's contention that making the timing of a response contingent upon the occurrence of an event specified in a request is obvious, and motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) Applicant's attorney challenged that view and asked whether the Examiner could show support for that view. The examiner has failed to show any support for that view. Thus Applicant argues that the rejection for obviousness fails due to the absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The twelfth issue on appeal.** Claim 190 (see Summary of Invention above at ninth embodiment) which is dependent upon claim 187 (discussed above for the sixth issue on appeal) is rejected as obvious in view of Sibley. Elsewhere in the Office Action the Examiner has suggested that the disclosee of the claims corresponds to Sibley's traders that use Sibley's trading terminals.

(a) As discussed above for the sixth issue on appeal at points (a-1) to (a-6), Sibley fails to disclose several of the elements of claim 187. Claim 190 depends upon claim 187 and thus requires all of those elements (but not the element discussed at point (a-7) which applies only to claim 188). In addition:

(a-8) Sibley fails to disclose a predetermined relationship existing between the first data item and the second offer. By asserting in the Office Action at page 9 lines 2-5 that it would have been obvious to include this element of claim 190, the Examiner implicitly admits that Sibley does not disclose such a predetermined relationship.

(b) As discussed above in greater detail for the sixth issue on appeal at point (b), Sibley teaches away from the following elements of claim 187 from which claim 189 depends:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade).

(b-2) Sibley teaches away from executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host in two ways:

(b-2-i) First, Sibley teaches away from having the central host exchange operate as an offer matching system that executes (as defined in the application) one offer against another.

(b-2-ii) Second, Sibley teaches that each of Sibley's local exchanges (where trades are actually executed in Sibley's system) should have trading rules that permit any trader terminal on one local exchange to trade with any trader terminal on another local exchange (See Sibley at column 5, lines 52-57), thereby eliminating any need for the central host exchange to have trading rules of its own that govern the execution of offers.

(b-3) Sibley teaches away from having Sibley's central exchange host use a query/response protocol to communicate information about offers. Please see the first issue on appeal at (b-1) for a detailed discussion of this point.

(b-4) Sibley teaches away from the use of digital signatures by teaching that “all of the data being received or transmitted will be encoded or scrambled”, which would obviate the need for using a digital signature to detect responses that are not from the offer matching system or have been tampered with.

(c) The Examiner has failed to provide any reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

Please review the discussion above for the sixth issue on appeal at (c) concerning claim 187 from which claim 190 depends.

In the Office Action at page 8 lines 21 - page 9 line 5, the Examiner repeats verbatim the discussion presented previously by the Examiner for deleted claim 55. In the Substantive Response, in the context of discussing claim 190 (formerly known as claim 55), (i) Applicant’s attorney disagreed with the Examiner’s assertion (without citing any relevant prior art) that it would have been obvious to have added to Sibley’s disclosure “selecting a predetermined relationship between the first data item and the second offer to obtain the above mentioned advantages” and (ii) motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) Applicant’s attorney challenged that view and asked whether the Examiner can show support for that view. The examiner failed to show any support for that view. Thus Applicant argues that the rejection for obviousness fails due to the absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing this element that is missing in the reference.

In the Substantive Response, in the context of discussing claim 190 (formerly known as claim 55), Applicant asked the Examiner to explain the relevance to claim 190 (formerly know as claim 55) of the following phrases used in the Examiner’s discussion of claim 190:

“on changes and modifications and changes to the offer” (see Office Action at page 8 line 22 - page 9 line 1) and

“second offer is to be matched with the first offer to find out if a offer can be executed” (see Office Action at page 9 lines 1-2)

However, the Examiner has never explained how those phrases (and thus how the Examiner’s

discussion) is relevant to claim 190.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by directly querying such systems using offer identifiers. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to learn about the general state of the market (e.g., by responding to queries for information about current best bid and best ask prices), such systems did not generally disclose information about the status of particular offers to normal investors and members of the public. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded over-the-counter through NASDAQ) would not be able to find out from the offer matching system the status of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art offer matching systems by adding the ability for normal investors and members of the public to obtain from offer matching systems specific information about particular offers by using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors to check that their brokers were providing unaltered copies of information about such investors' offers that was provided by such offer matching systems. One goal of Applicant's invention is to improve upon the state of the art by having offer matching systems digitally sign information provided to brokers so that when investors receive copies of such information they can satisfy themselves that the information is from the offer matching systems and has not been modified by the brokers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

The Examiner gives no reasonable support for the Examiner's position that it would have been obvious at the time of Applicant's invention for one skilled in the art to

modify Sibley to include, in combination, all of the following: (a-1) Sibley's central exchange host's executing a first offer at least in part against a second offer, (a-2) executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, (a-3) a first request for information concerning the first offer, (a-4) a second request in response to a first request, (a-5) communicating a first response from the offer matching system to the first discloser, (a-6) any digital signature, (a-8) a predetermined relationship existing between the first data item and the second offer; particularly since, as discussed above, Sibley teaches away from some of those elements..

In the Substantive Response, in the context of discussing claim 189 (formerly known as claim 54), Applicant's attorney disagreed with the Examiner's contention that adding to Sibley a predetermined relationship existing between the first data item and the second offer is obvious, and motivated by the case of *In Re Ahlert and Kruger*, 165 USPQ 418 (CCPA 1970) Applicant's attorney challenged that view and asked whether the Examiner could show support for that view. The examiner has failed to show any support for that view. Thus Applicant argues that the rejection for obviousness fails due to the absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The thirteenth issue on appeal.** Claims 191, 192, 194, 195, 197, 198, 201 and 202 (see Summary of Invention above at tenth embodiment) are rejected as obvious in view of Sibley. Claims 191 and 197 are independent claims. Claims 192, 194 and 195 depend upon claim 191. Claims 198, 201 and 202 depend upon claim 197.

(a) Sibley fails to disclose several elements of independent claims 191 and 197.

(a-1) Sibley fails to disclose associating an offer with a globally unique identifier. The Examiner seems to admit that Sibley does not disclose associating offers with globally unique identifiers by arguing in the Office Action at page 9 line 21 - page 10 line 6 that adding such identifiers to Sibley would have been obvious.

(a-2) Sibley fails to disclose Sibley's central exchange host's executing a first offer at least in part against a second offer. Each of claim 191 step (e) and claim 197 step (e) requires "the offer matching system's executing the first offer at least in part against the



second offer”. See the detailed discussion above in the context of the sixth issue on appeal at (a-1).

(a-3) Sibley fails to disclose executing offers in accordance with a set of rules that govern the operation of Sibley’s central exchange host. Each of claim 191 step (e) and claim 197 step (e) requires executing offers in accordance with a “set of rules that govern the operation of the offer matching system”. At page 9 lines 17-21 of the Office Action, the Examiner asserts that it would have been obvious to add to Sibley’s central exchange host a set of rules that govern the operation Sibley’s central host exchange with respect to offer matching, thereby implicitly admitting that the Sibley does not disclose such a set of rules.

(a-4) Sibley fails to disclose publishing any information. As discussed below at (b-3), Sibley teaches away from publishing (i.e., making available to the public) any information. In addition, Applicant has diligently searched Sibley and has been unable to discover any disclosure in Sibley of Sibley’s central exchange host publishing any information.

(a-5) Sibley fails to disclose publishing either: in accordance with claim 191 step (f), a data packet that includes a first offer identifier and a first data item that concerns the first offer or, in accordance with claim 197 step (f), a data packet that includes a first offer identifier and a first data item concerning an execution of the first offer against the second offer.

With respect to claim 191 step (f), apparently the Examiner admits that this step is not disclosed in Sibley because the Examiner cites no relevant portions of Sibley.

With respect to claim 197 step (f), apparently the Examiner admits that this step is not disclosed in Sibley because the Examiner asserts, without reasonable support, that such step is obvious in view of Sibley (note that the Examiner’s comments in the Office Action at page 10 lines 9-12 concern only publication of executions of offers).

(b) Sibley teaches away from independent claims 191 and 197 in the following ways:

(b-1) Sibley teaches away from having Sibley’s central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). See the detailed discussion above in the context of the sixth issue on appeal at (b-1).

(b-2) Sibley teaches away from executing offers in accordance with a set of rules that govern the operation of Sibley’s central exchange host in two ways:

(b-2-i) First, as discussed above, Sibley teaches away from having the central host exchange operate as an offer matching system that executes (as defined in the application) one offer against another.

(b-2-ii) Second, Sibley teaches that each of Sibley's local exchanges (where trades are actually executed in Sibley's system) should have trading rules that permit any trader terminal on one local exchange to trade with any trader terminal on another local exchange (See Sibley at column 5, lines 52-57), thereby eliminating any need for the central host exchange to have trading rules of its own that govern the execution of offers.

(b-3) Sibley teaches away from publishing any information. The Application does not define "publish". According to Merriam-Webster's Collegiate Dictionary on line (available at <http://www.m-w.com/> as of 2001.10.28), the word "publish", when used in the transitive sense as it is in claims 191 and 197, means: 1a: to make generally known; 1b: to make public announcement of; 2a: to disseminate to the public; 2b: to produce or release for distribution; specifically: PRINT; 2c: to issue the work of (an author).

(b-3-i) Sibley teaches that all communications should be encrypted. Sibley at column 8 lines 47-52, in the context of a discussion of Sibley's Figure 4 (which concerns the internal structure of Sibley's user terminals), teaches that "all of the data being received or transmitted will be encoded or scrambled so that it has to be either decrypted (descrambled) or encrypted depending upon whether it is being sent or received." Thus, while Sibley's use of a satellite to transmit data from a central exchange host to user terminals might at first blush suggest a form of publication, Sibley's teaching that all data be encrypted would deny persons without access to one of Sibley's user terminals the ability to learn the contents of such transmissions.

(b-3-ii) Sibley also teaches that the trader at each user terminal should be identified and authenticated. Sibley teaches at column 9 lines 36-57 and in Figure 5 that a trader should be required to input the trader's first name, last name and access code before being allowed to utilize a user terminal. Sibley at column 9 lines 47-48 even suggests using retinal and/or finger print verification to further secure access to user terminals. Thus, Sibley teaches away from allowing unauthorized members of the public to utilize Sibley's user terminals to gain access to information that Sibley's central exchange host transmits to Sibley's user terminals.

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

The Examiner has asserted (Office Action at page 9 lines 17-20) that if Sibley should have taught having Sibley's central exchange host execute offers against each other (which assumption is false), then it would have been obvious to have rules that govern the offer matching and execution operations of Sibley's central exchange host. However, Sibley does not teach having Sibley's central exchange host execute offers and thus the Examiner's assertion is irrelevant. In fact, as discussed above at (b-1), Sibley teaches away from having Sibley's central exchange host execute offers and give rise to binding obligations to clear and settle trades. Thus, the Examiner's assertions about what might have been obvious in circumstances that do not exist are irrelevant for determining whether the claims are obvious in view of Sibley.

The Examiner has asserted (Office Action at page 9 line 21 - page 10 line 6) that it would have been obvious to include associating an offer with an identifier not associated with any other offer. The Examiner's "argument" seems to have the following structure: it would be obvious to modify the reference to include each detail of the rejected claim because modifying the reference in that way would achieve some identified result. In particular, the Examiner asserts, without support, that to achieve the result of providing easy identification of offers in communications between participants and Sibley's central exchange host, it would have been obvious to associate each offer submitted by a participant with a unique identifier that is not associated with any other offer (i.e., a globally unique identifier). Applicant respectfully submits that if one skilled in the art at the time of Applicant's invention were to desire to use offer identifiers to facilitate communications between a participant and Sibley's central exchange host, then a more obvious method of satisfying the Examiner's desire would have been to assign offer identifiers that were unique for each participant (i.e., locally unique) but were not globally unique (e.g., for the first participant, number such participant's offers from 1 to n; for the second participant, number such participant's offers from 1 to n, etc.). See for example Common Message Switch (CMS) Interface Standards NYSE / AMEX / SIAC

Version 3: May 1996 (a copy of which was submitted with Applicants Information Disclosure Statement) at page II-58 which teaches identifying offers from each branch office using a sequence number for such branch office in line 1 field 2.

The Examiner seems to assert (Office Action at page 10 lines 7-12) that it would have been obvious to modify Sibley's central exchange host to include (as required by claim 197 step (f)) publishing a data packet that includes both the first offer identifier and a data item concerning the execution of the first offer because such a modification would provide the public with an idea of the sales prices of the traded items. However, Applicant respectfully submits that if (for purposes of argument only) one skilled in the art at the time of Applicant's invention were to ignore Sibley's express teaching away from publishing any information to satisfy the Examiner's desire to provide the public with an idea of the sales prices of traded items, then a more obvious method of satisfying the Examiner's desire would be to modify Sibley's central exchange host so that it would publish information similar to a normal stock ticker that discloses for each trade the traded item, the quantity traded and the price at which the trade occurred, without wasting bandwidth by also publishing a globally unique offer identifier for either the offer to buy or the offer to sell that gave rise to the trade.

Although for purposes of this appeal only Applicant has not spent the effort required to make an issue out of the differences between claims 191 (publication of data about an offer, e.g., offer price) and 197 (publication of data about an execution, e.g., execution price, which can differ from offer price), Applicant reserves the right to assert the materiality of such differences at other times and in other contexts.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by monitoring information published by such systems. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to track general trading activity by publishing something like a stock ticker that disclosed for each completed trade the item traded, the quantity traded and the price, such systems did not disclose information that would identify which buy offer or which sell offer resulted in such trade. Consequently, a normal investor trading through a state of the

art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded on the New York Stock Exchange) would not be able to determine from watching the ticker which, if any, of the reported trades arose from executions of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art stocker tickers by including offer identifiers in published trade reports so that investors and members of the public will gain the ability to track particular offers using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

To reject claims 191, 192, 194, 195, 197, 198, 201 and 202 as obvious in view of Sibley requires concluding that it would have been obvious at the time of Applicant's invention for one skilled in the art to modify Sibley to include, in combination, all of the following: [as required by claim element (b)] associating the first offer with a first identifier not associated with any offer other than the first offer, [as required by claim element (e)] executing offers against each other in Sibley's central host exchange so as to give rise to binding obligations to clear and settle trades, [as required by claim element (e)] executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, [as required by claim element (f)] publishing a data packet that includes both the first globally unique offer identifier and either a data item concerning the first offer or a data item concerning an execution of the first offer; even though, as discussed above at (b), Sibley teaches away from several of those elements.

The Examiner has never offered any reasonable support for the proposition that modifying Sibley to include that combination of features would have been obvious at the time of Applicant's invention. Applicant has disputed that including the combination of features would have been obvious.

Reversal is requested.

**The fourteenth issue on appeal.** Claim 193 (see Summary of Invention above at eleventh embodiment) is rejected as obvious in view of Sibley. However:

(a) Sibley fails to disclose several elements of this claim. As discussed in greater detail above in the context of the thirteenth issue on appeal and claim 191 upon which Claim 193 is dependent:

(a-1) Sibley fails to disclose associating an offer with a globally unique identifier.

(a-2) Sibley fails to disclose Sibley's central exchange host's executing a first offer at least in part against a second offer.

(a-3) Sibley fails to disclose executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host.

(a-4) Sibley fails to disclose publishing any information.

(a-5) Sibley fails to disclose publishing a data packet that includes both the first offer identifier and a first data item that concerns the first offer.

In addition:

(a-6) Sibley fails to disclose a predetermined relationship between the first data item and a second offer against which the first offer was executed at least in part, as required by claim 193. The Examiner seems to admit that this element is not present in Sibley by arguing that it would have been obvious to add such a predetermined relationship to Sibley.

(b) Sibley teaches away from claim 193 in the following ways, which are discussed in greater detail above in the context of the thirteenth issue on appeal and claim 191 upon which claim 193 is dependent:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another.

(b-2) Sibley teaches away from executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host.

(b-3) Sibley teaches away from publishing any information.

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements of claims 191 and 193 that are missing from Sibley.

Claim 193 requires that "a predetermined relationship exists between the first data item and a second offer against which the first offer was executed at least in part". In the Office

Action at page 10 lines 13-16, the Examiner's discussion of claim 193 begins as follows:

"With respect to claim 193, since the first data item is responsive to the information requested by the disclosee on changes and modifications and changes to the offer and since the second offer is to be matched with the first offer to find out if a offer can be executed ..." [emphasis added]

After diligent examination of claims 191 (the only claim from which claim 193 is dependent) and 193, Applicant has been unable to discover in either of such claims any mention of (i) a response to a request, (ii) a request, (iii) a disclosee, (iv) changes, (v) modifications, or (vi) matching offers. In the Substantive Response, Applicant asked the Examiner to explain how the quoted language relates to claim 193 (formerly numbered 126). The Examiner has failed to provide such an explanation.

In the Office Action at page lines 16-19, the Examiner's discussion of claim 193 ends as follows:

"... it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to have included selecting a predetermined relationship between the first data item and the second offer to obtain the above mentioned advantages" [emphasis added].

In the Substantive Response, Applicant admitted that Applicant has been unable to figure out what language is the antecedent basis for the phrase "above mentioned advantages".

Consequently, in that amendment, Applicant asked the Examiner to explain how the quoted language relates to claim 193 (then numbered 126). The Examiner has failed to provide such an explanation.

In the Substantive Response, Applicant disagreed with the Examiner's assertion that the requirements of claim 193 (then numbered 126) would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention and asked the Examiner explain why the Examiner believes that it would have been obvious. The Examiner has failed to respond to that request.

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by monitoring information published by such systems. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal

investors and members of the public to track general trading activity by publishing something like a stock ticker that disclosed for each completed trade the item traded, the quantity traded and the price, such systems did not disclose information that would identify which buy offer or which sell offer resulted in such trade. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded on the New York Stock Exchange) would not be able to determine from watching the ticker which, if any, of the reported trades arose from executions of such investor's own buy offer. To track the progress of the investor's own buy offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art stocker tickers by including offer identifiers in published trade reports so that investors and members of the public will gain the ability to track particular offers using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

Despite Applicant's requests, the Examiner has given no reasonable support for the Examiner's position that adding the combination of all the following elements to Sibley would have been obvious to one skilled in the art at the time of Applicant's invention: [as required by claim element (b)] associating the first offer with a first identifier not associated with any offer other than the first offer, [as required by claim 191 element (e)] executing offers against each other in Sibley's central host exchange so as to give rise to binding obligations to clear and settle trades, [as required by claim 191 element (e)] executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, [as required by claim 191 element (f)] publishing a data packet that includes both the first globally unique offer identifier and a data item concerning the first offer and [as required by claim 193] a predetermined relationship between the first data item and a second offer against which the first offer was executed at least in part.

Since the Examiner has failed to respond to Applicant's request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis



for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The fifteenth issue on appeal.** Claim 199 (see Summary of Invention above at twelfth embodiment) is rejected as obvious in view of Sibley. However:

(a) Sibley fails to disclose several elements of this claim. As discussed in greater detail above in the context of the thirteenth issue on appeal and claim 197 upon which Claim 199 is dependent:

(a-1) Sibley fails to disclose associating an offer with a globally unique identifier.

(a-2) Sibley fails to disclose Sibley's central exchange host's executing a first offer at least in part against a second offer.

(a-3) Sibley fails to disclose executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host.

(a-4) Sibley fails to disclose publishing any information.

(a-5) Sibley fails to disclose publishing a data packet that includes both the first offer identifier and a first data item that concerns the first offer.

In addition:

(a-6) Sibley fails to disclose associating a second offer with a second globally unique identifier, as required by claim 199. The Examiner seems to admit that this element is not present in Sibley by arguing that it would have been obvious to add to Sibley associating such a second globally unique identifier to Sibley.

(a-7) Sibley fails to disclose publishing such second identifier as part of the first data packet. The Examiner has not commented in any way upon this requirement of claim 199.

(b) Sibley teaches away from claim 199 in the following ways, which are discussed in greater detail above in the context of the thirteenth issue on appeal and claim 197 upon which claim 199 is dependent:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another.

(b-2) Sibley teaches away from executing offers in accordance with a set of

rules that govern the operation of Sibley's central exchange host.

(b-3) Sibley teaches away from publishing any information.

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements of claims 197 and 199 that are missing from Sibley.

The Examiner has asserted (Office Action at page 10 line 20 - page 11 line 6) that it would have been obvious to include associating the second offer with an identifier not associated with any other offer. The Examiner asserts, without support, that to achieve the result of providing easy identification of offers in communications between participants and Sibley's central exchange host, it would have been obvious to associate each offer submitted by a participant with a unique identifier that is not associated with any other offer (i.e., a globally unique identifier). Applicant respectfully submits that if one skilled in the art at the time of Applicant's invention were to desire to use offer identifiers to facilitate communications between a participant and Sibley's central exchange host, then a more obvious method of satisfying the Examiner's desire would have been to assign offer identifiers that were unique for each participant (i.e., locally unique) but were not globally unique (e.g., for the first participant, number such participant's offers from 1 to n; for the second participant, number such participant's offers from 1 to n, etc.).

State of the art offer matching systems at the time of Applicant's invention did not permit normal investors and members of the public to track the progress of particular offers through such systems by monitoring information published by such systems. While state of the art offer matching systems at the time of Applicant's invention sometimes permitted normal investors and members of the public to track general trading activity by publishing something like a stock ticker that disclosed for each completed trade the item traded, the quantity traded and the price, such systems did not disclose information that would identify which buy offer or which sell offer resulted in such trade. Consequently, a normal investor trading through a state of the art offer matching system at the time of Applicant's invention (e.g., a retail investor who had submitted to a broker a buy offer for a stock traded on the New York Stock Exchange) would not be able to determine from watching the ticker which, if any, of the reported trades arose from executions of such investor's own buy offer. To track the progress of the investor's own buy

offer, the investor would need to communicate with the investor's broker who could in turn communicate with the offer matching system. One goal of Applicant's invention is to improve upon state of the art stocker tickers by including offer identifiers in published trade reports so that investors and members of the public will gain the ability to track particular offers using offer identifiers. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

To reject claim 199 as obvious in view of Sibley requires concluding that it would have been obvious for one skilled in the art at the time of Applicant's invention to modify Sibley to include, in combination, all of the following: [as required by claim 197 element (b)] associating the first offer with a first identifier not associated with any offer other than the first offer, [as required by claim 199] associating the second offer with a second identifier not associated with any offer other than the second offer, [as required by claim 197 element (e)] executing offers against each other in Sibley's central host exchange so as to give rise to binding obligations to clear and settle trades, [as required by claim 197 element (e)] executing offers in accordance with a set of rules that govern the operation of Sibley's central exchange host, [as required by claim 197 element (f) and 199] publishing a data packet that includes the first globally unique offer identifier, the second globally unique offer identifier and a data item concerning an execution of the first offer; even though, as discussed above at (b), Sibley teaches away from several of those elements.

The Examiner has never offered any reasonable support for the proposition that modifying Sibley to include that combination of features would have been obvious at the time of Applicant's invention. Applicant continues to dispute that including such a combination of features would have been obvious.

Reversal is requested.

**The sixteenth issue on appeal.** Claim 200 is rejected for the first time as obvious in view of Sibley. Claim 200 is dependent upon claim 197 which is discussed at length in the context of the thirteenth issue on appeal. For all of the reasons discussed in the context of the thirteenth issue on appeal, Sibley does not suffice to justify rejection of claim 200.

Reversal is requested.

**The seventeenth issue on appeal.** Claim 203 is rejected as obvious in view of Sibley. However, the Examiner's rejection of claim 203 seems to be based upon the Examiner's misapprehension that the "monitor" referred to in claim 203 corresponds to a piece of equipment used by a trader rather than to a person or entity that must approve offers submitted by a first participant before such offers can be executed. In the Substantive Response, Applicant suggested that the Examiner had proposed the following correspondences between the elements of claim 203 and the elements disclosed by Sibley:

claim 203's offer matching system = Sibley's central exchange host

claim 203's participant = one of Sibley's local exchanges

claim 203's monitor = a display monitor that is a component in one of Sibley's user terminals

The Examiner did not object to Applicant's suggestion that these are the correspondences intended by the Examiner.

The Examiner's proposal that claim 203's monitor corresponds to one of Sibley's user terminal display monitors is unreasonable. As used in the specification and in claim 203, a monitor is a person, entity or system that monitors the trading activity of a participant. As used in Sibley, a display monitor is part of a user terminal. It is clear from the application that the noun "monitor" in the context of the application does not refer to a display monitor that is a component of a computer system used by a trader. The application at Figure 2 shows that monitors are logically independent of participants and communicate with the offer matching system independently of the participants. The application at page 9 line 21 indicates that examples of a monitor (as such term is used in the application) might be "the individual or entity to which extra information will be disclosed". The application at page 9 lines 20-22 states that "[i]n one embodiment of the invention, a participant or an operator of the offer matching system can configure the offer matching system to direct that an offer submitted by a first participant will not be executed unless and until a second person approves such offer." The application at page 34 lines 9-13 suggest advantages that would flow from locating the systems that are authorized to approve offers remotely from the computers that are used to submit offers.

(a) Sibley fails to disclose several elements of claim 203.

(a-1) Sibley fails to disclose storing in Sibley's central exchange host a first association among one of Sibley's local exchanges and one of Sibley's user terminal display

monitors. See claim 203 step (a). Applicant has been unable to find in Sibley any suggestion of storing such an association in Sibley's central exchange host. In the Substantive Response, Applicant asked the Examiner to identify where Sibley teaches storing such an association in Sibley's central exchange host. The Examiner has failed to provide such information.

(a-2) Sibley fails to disclose Sibley's central exchange host's determining that the first description of an offer is from the first local exchange. See claim 203 step (c). Applicant has been unable to find in Sibley any disclosure of having Sibley's central exchange host determine which of Sibley's local exchanges is the source of a particular offer. The Examiner has never provided a specific citation to Sibley.

(a-3) Sibley fails to disclose Sibley's central exchange host's receiving a message that approves an offer. See claim 203 step (e). Applicant has been unable to find in Sibley any disclosure of Sibley's central exchange host's receiving any messages from a user terminal's display monitor or receiving any approval of an offer and the Examiner has never provided a specific citation to Sibley.

(a-4) Sibley fails to disclose Sibley's central exchange host's determining that an approval message is from a particular user terminal display monitor. See claim 203 step (f). Applicant has been unable to find in Sibley any disclosure of having Sibley's central exchange host determine which of Sibley's user terminal display monitors is the source of any message and the Examiner has never provided a specific citation to Sibley.

(a-5) Sibley fails to disclose Sibley's central exchange host's refusing, before determining that an approval message is from a particular user terminal display monitor, to execute a first offer against any other offer. See claim 203 step (g). As discussed above at (a-4), Applicant has been unable to find in Sibley any disclosure of Sibley's central exchange host making such a determination. Further, Applicant has been unable to discover in Sibley any disclosure of the central exchange host's refusing to execute any offer in any circumstance and the Examiner has never provided a specific citation to Sibley.

(a-6) Sibley fails to disclose Sibley's central exchange host's executing offers after determining that an approval message is from a particular user terminal display monitor. See claim 203 step (h). See also the detailed discussion above in the context of the sixth issue on appeal at (a-1).

At page 11 lines 15-20 of the Office Action, the Examiner cites no

language in Sibley for the proposition that Sibley's central exchange host ever executes any offers (as execute is expressly defined in the application). Applicant has diligently searched Sibley and has been unable to locate disclosure suggesting that Sibley's central exchange host can execute one offer against another to create an obligation to clear and settle a trade that is binding upon Sibley's traders. In fact, as discussed below at (b-1), Sibley teaches away from having Sibley's central exchange host execute offers.

(b) Sibley teaches away from claim 203 in the following ways:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). See the detailed discussion above in the context of the sixth issue on appeal at (b-1).

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

In the Office Action at page 11 lines 15-17, the first premise for the Examiner's assertion that claim 203 is obvious in view of Sibley is the Examiner's assertion, without citing any relevant portions of Sibley, that "... Sibley teaches that [a user terminal's display] monitor can have access to the execution and process of the offers by identifying themselves to the offer matching system..." In the Substantive Response, Applicant asked the Examiner to specifically point out where Sibley discloses (i) that a user terminal's display monitor can have access to the execution and process of offers and (ii) that a user terminal's display monitor should identify itself to the central exchange host. The Examiner failed to provide any such citation.

In the Office Action at page 11 lines 16-20, the Examiner asserts without support that "for security reasons" it would have been obvious "to have included [the central exchange host's] determining the [approval] message is from a first [user terminal's display] monitor and not to execute the offer against any other offer until [the central exchange host] determines that the message is from the first [user terminal display] monitor ..." However, without adding any of the elements of claim 203 that are not disclosed in Sibley, Sibley already teaches a perfectly adequate way to address "security" issues related to communications about offers. First, Sibley teaches that the identity of traders must be disclosed and verified (Sibley at Figure 5 and column 9 lines 36-54. Second, at column 5 lines 34-41, Sibley teaches that if a remote terminal user

desires to receive or transmit information about offers, then such user must communicate with its local exchange which then relays the communication to the central exchange host (even though Sibley does teach that other types of information can be communicated directly between user terminals and the central host exchange). Third, at column 8 lines 47-52, Sibley teaches that all communications should be encrypted. Thus, Sibley teaches a method of operation which assures that any offer data received at Sibley's central host exchange is from an identified and validated trader without any requirement that Sibley's central exchange host additionally determine that an unnecessary and undisclosed approval message is from a particular user terminal display monitor.

State of the art offer matching systems at the time of Applicant's invention did not contemplate that a trader might submit an offer to the offer matching system before all required approvals had been obtained. Consequently, such offer matching systems did not include a means for holding submitted offers in suspension until some other person or system approved such offers. One goal of Applicant's invention is to improve upon state of the art offer matching systems by allowing an offer matching system to be configured so that a monitor (e.g., a clearing broker, a lender or a guarantor) must approve offers submitted by a particular participant before the offer matching system will attempt to execute such offers. One advantage of having an offer matching system enforce this rule is that it avoids a requirement that the participant and/or the monitor understand and trust the computer systems of the other. The Examiner has failed to provide any basis for concluding that it would have been obvious to one skilled in the art at the time of Applicant's invention to modify Sibley to add this novel feature.

To reject claim 203 as obvious in view of Sibley requires concluding that it would have been obvious for one skilled in the art at the time of Applicant's invention to modify Sibley to include, in combination, all of the following: (1) storing in Sibley's central exchange host a first association among one of Sibley's local exchanges and one of Sibley's user terminal display monitors, (2) Sibley's central exchange host's determining that the first description of an offer is from the first local exchange, (3) Sibley's central exchange host's receiving a message that approves an offer, (4) Sibley's central exchange host's determining that the approval message is from a particular user terminal display monitor, (5) Sibley's central

exchange host's refusing, before determining that an approval message is from a particular user terminal display monitor, to execute a first offer against any other offer, (6) Sibley's central exchange host's executing offers in a manner that gives rise to an obligation to clear and settle a trade, (7) Sibley's central exchange host's executing an offer only after determining that an approval message is from a particular user terminal display monitor; even though, as discussed above at (b), Sibley teaches away from having Sibley's central exchange host execute offers.

In the Substantive Response, Applicant's attorney expressly challenged the examiner's view that claim 203 is obvious in view of Sibley and asked whether the Examiner can show support for this view. The Examiner has never provided any such support. Since the Examiner has failed to respond to the request for a statement by the Examiner of the basis, if any, for the Examiner's view, Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing, in combination, the many elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The eighteenth issue on appeal.** Claim 185 (see Summary of Invention above at thirteenth embodiment) is rejected for the first time as obvious in view of Sibley. Claim 185 does not stand or fall together with claim 204, despite the Examiner's suggestion to the contrary. Claim 185 is separately patentable in view of Sibley because, even if claim 204 were obvious in view of Sibley (an assumption that Applicant disputes), (i) it still would not be obvious to modify Sibley's central exchange host to select a first price that is strictly greater than the minimum price at which a sell offer may be executed and is strictly less than the maximum price at which the buy offer may be executed and (ii) it still would not be obvious to modify Sibley's central exchange host to execute a sell offer against a buy offer at a price that is not equal to either the minimum sell price or the maximum buy price.

(a) Sibley fails to disclose the following elements of claim 185:

(a-1) Sibley fails to disclose Sibley's central exchange host selecting a first price that is indicative of recent trading activity for a traded item. See claim 185 step (c). The Examiner appears to admit that Sibley fails to disclose Sibley's central exchange host's selecting a price indicative of recent trading activity by asserting in the Office Action at page 12 lines 10-13 that it would have been obvious to modify Sibley to include having a buyer [not Sibley's



central exchange host] select a price to be indicative of recent trading activity.

(a-2) Sibley fails to disclose Sibley's central exchange host selecting a first price that is greater than the minimum price at which a sell offer may be executed and less than the maximum price at which a buy offer may be executed. See claim 185 step (c). The limitation that the first price be greater than the minimum price requires that the first price not equal the minimum price (e.g., the limit price in the buy offer). The limitation that the first price be less than the maximum price requires that the first price is not equal to the maximum price (e.g., the limit price in the sell offer).

The examiner (i) asserts, without citing any specific language in Sibley, that Sibley's buyers [presumably traders at Sibley's user terminals who submit data describing offers to buy] select a first price (see the Office Action at page 12 lines 10-11) and (ii) assumes, without support, that the first price of claim 185 corresponds to the buy price selected by Sibley's buyer (see the Office Action at page 12 line 16). However, claim 185 step (c) requires (i) that the first price be selected by the offer matching system (not by the person submitting a buy offer) and (ii) that the first price be LESS than (and therefore, not equal to) the maximum price that the buyer offered to pay. Consequently, the maximum buy price selected by Sibley's trader, regardless of how it is selected, can not (as a matter of logic) correspond to the first price of claim 185.

(a-3) Sibley fails to disclose Sibley's central exchange host executing a sell offer against a buy offer at any price. See the detailed discussion above in the context of the sixth issue on appeal at (a-1).

(a-4) Sibley fails to disclose Sibley's central exchange host executing a sell offer against a buy offer at a price (i.e., the first price) that is indicative of recent trading activity for the traded item and is not equal to either the minimum sell price or the maximum buy price.

(b) Sibley teaches away from claim 185 in the following ways:

(b-1) Sibley teaches away from having Sibley's central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). See the detailed discussion above in the context of the sixth issue on appeal at (b-1).

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of

the elements missing from Sibley.

In the Office Action at page 12 lines 13-15, the Examiner suggests as a motivation for adding to Sibley the selection of a first price that is indicative of recent trading activity by Sibley's buyer (NOT by Sibley's central exchange host) a desire to "enable the buyer to be informed with the recent trading activity of the item before selecting the [maximum] {although the examiner actually wrote 'minimum and', this appears to be a typographical error} price that he is willing to pay". However, Sibley already discloses a perfectly adequate means for buyer's at Sibley's user terminals to be informed about recent trading activity of an item before selecting the maximum price for a buy order. Sibley at column 7 line 61 - column 8 line 7 teaches having Sibley's central exchange host broadcast in bulk to user terminals commodity market information consisting of "data representing the trading of each commodity including price, volume and the like" that is "received in bulk by the user's terminal where it is selectively displayed...".

Applicant has diligently examined the Office Action at page 12 and has been unable to find therein any statement of why it would be obvious to modify Sibley to include having Sibley's central exchange host select any price, including without limitation a price that is indicative of recent trading activity.

Applicant has diligently examined the Office Action at page 12 and has been unable to find therein any statement of why it would be obvious to modify Sibley to execute a buy offer against a sell offer at a price that is equal to neither the maximum buy price selected by the buyer nor the minimum sell price selected by the seller.

To reject claim 185 as obvious in view of Sibley requires concluding that it would have been obvious for one skilled in the art at the time of Applicant's invention to modify Sibley to include, in combination, all of the following: (1) Sibley's central exchange host selecting a first price that is indicative of recent trading activity for a traded item, (2) Sibley's central exchange host selecting a first price that is greater than the minimum price at which a sell offer may be executed and less than the maximum price at which a buy offer may be executed, (3) Sibley's central exchange host executing a sell offer against a buy offer, and (4) Sibley's central exchange host executing a sell offer against a buy offer at a price (i.e., the first price) that is indicative of recent trading activity for the traded item and is not equal to either the minimum sell price or the maximum buy price; even though, as discussed above at (b), Sibley

teaches away from having Sibley's central exchange host execute offers.

Had claim 185 been rejected for the first time in other than a final action, the Applicant would have had an opportunity to ask, in view of *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970), for a statement by the Examiner of the basis, if any, for the Examiner's view. However, since the claim is on appeal on its first rejection, Applicant can only argue that the rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference.

Reversal is requested.

**The nineteenth issue on appeal.** Claim 204 (see Summary of Invention above at fourteenth embodiment) is rejected as obvious in view of Sibley. Claim 204 does not stand or fall together with claim 185 despite the Examiner's suggestion to the contrary. Claim 204 is separately patentable in view of Sibley because, even if claim 185 should be obvious in view of Sibley (an assumption that Applicant disputes), (i) it still would not be obvious to modify Sibley's central exchange host to determine a minimum price at which the sell offer may be executed, (ii) it still would not be obvious to modify Sibley's central exchange host to determine a maximum price at which a buy offer may be executed; and (iii) it still would not be obvious to modify Sibley's central exchange host to execute a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price.

(a) Sibley fails to disclose the following elements of claim 204:

(a-1) Sibley fails to disclose Sibley's central exchange host's detecting that a buy offer may be executed in whole or in part against a sell offer. See claim 204 step (c) which requires, in a method for executing offers in an offer matching system, "detecting that the buy offer may be executed in whole or in part against the sell offer". Applicant has been unable to find in Sibley any disclosure of having Sibley's central exchange host detect that a buy offer may be executed in whole or in part against a sell offer. In the Examiner's discussion of Claim 204, the Examiner does not cite any portion of Sibley as disclosing such detection.

(a-2) Sibley fails to disclose Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be executed. See claim 204 step (d). The Examiner seems to assert (at Office Action page 11 line 21 - page 12 line 2) that Sibley at Figure 9 teaches Sibley's central exchange host's determining a minimum price that is

the lowest price at which the sell offer may be executed. However, Sibley teaches that Sibley's user terminals (rather than Sibley's central exchange host) should determine what will be shown in the display of Sibley's Figure 9. Sibley's Figures 6-9 and Sibley at column 9 line 58 - column 11 line 40 describe generally how a trader interacts with a user terminal to generate the display of Sibley's Figure 9. In particular, Sibley at column 10 lines 17-21 teaches that the trader selects the local exchanges for which data will be shown in the display of Figure 9. Sibley at column 10 lines 21-27 teaches that as information from multiple local exchanges about multiple traded commodities arrives at the user terminal, the commodities and exchanges that the trader has selected are filtered out and displayed, the others ignored, thereby enabling the trader to concentrate on the information that is important to the trader. Sibley at column 10 lines 27-29 drives home the point that it is the intelligent user terminal that transforms the unmanageable total volume of data sent by the central exchange host into a concise subset. Thus, Sibley teaches having a central exchange host relay all offers to all user terminals and having each user terminal determine what to display. Furthermore, Sibley in Figure 9 teaches displaying a single price for each traded item. Thus Sibley teaches away from having Sibley's user terminals display both minimum sell prices and maximum buy prices, which would require displaying at least two prices for each traded item.

In the Office Action at page 18 line 23 - page 19 line 5 the Examiner seems to assert that if Sibley's central exchange host should execute offers against each other, then it would be necessary for Sibley's central exchange host to determine a minimum price that the seller is willing to sell and the maximum price that the buyer is willing to buy the item for. However, as discussed below at (a-5) Sibley fails to disclose Sibley's central exchange host's executing a buy offer against a sell offer and as discussed below at (b-3) Sibley teaches away from having Sibley's central exchange host execute one offer against another.

(a-3) Sibley fails to disclose Sibley's central exchange host's determining a maximum price that is the maximum price at which the buy offer may be executed. See claim 204 step (e). The Examiner seems to assert (at Office Action page 11 line 21 - page 12 line 3) that Sibley at Figure 9 teaches Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be executed. However, Sibley teaches that

Sibley's user terminals (rather than Sibley's central exchange host) should determine what will be shown in the display of Sibley's Figure 9. Furthermore, Sibley in Figure 9 teaches displaying a single price for each traded item. Thus Sibley teaches away from having Sibley's user terminals display both minimum sell prices and maximum buy prices, which would require displaying at least two prices for each traded item.

(a-4) Sibley fails to disclose a buy offer that may be executed against a sell offer wherein the maximum buy price is MORE than (and thus, does not equal) the minimum sell price. See claim 204 step (e). Without citing any relevant portions of Sibley, the Examiner seems to assert (at Office Action page 12 lines 3-8) that Sibley teaches that buy and sell offers can only be executed if the maximum buy price is GREATER than (thus not equal to) the minimum sell price. Applicant has not discovered, and the Examiner has not cited, any disclosure in Sibley suggesting that traders are prohibited from submitting buy offers and sell offers that specify the same price. Applicant has not discovered, and the Examiner has not cited, any disclosure in Sibley suggesting that traders are required to submit buy offers that specify prices that are strictly greater than the prices specified in sell offers.

(a-5) Sibley fails to disclose Sibley's central exchange host's selecting a first price that is indicative of recent trading activity for a traded item. The Examiner appears to admit that Sibley fails to disclose Sibley's central exchange host's selecting a price indicative of recent trading activity by asserting in the Office Action at page 12 lines 10-13 that it would have been obvious to modify Sibley to include having a buyer [not Sibley's central exchange host] select a price to be indicative of recent trading activity.

(a-6) Sibley fails to disclose Sibley's central exchange host's executing a buy offer against a sell offer. See the detailed discussion above in the context of the sixth issue on appeal at (a-1).

(a-7) Sibley fails to disclose executing a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price. Applicant has been unable to find in Sibley, and the Examiner has not cited, any disclosure of having Sibley's central exchange host select the price at which a buy offer and a sell offer with different limit prices will execute against each other using a price determined using a formula that is conditioned upon the relationships among the buy order

limit price, sell order limit price and a first price that is indicative of recent trading activity for a traded item. Sibley at column 5 lines 15-21, which discusses the mechanics of trading, states that “if one of the local users or members associated with the London Exchange 10 desires to trade with the member associated with the Kansas City Exchange 10, he may do so”.

However, Sibley never mentions the possibility of, the potential problems associated with, or solutions to the potential problems associated with, automatic matching or automatic execution by an offer matching system of buy and sell offers that specify different limit prices.

(b) Sibley teaches away from claim 204 in the following ways:

(b-1) Sibley teaches away from having Sibley’s central exchange host detect that a buy offer may be executed in whole or in part against a sell offer. Sibley teaches that it is an individual member of a second local exchange (rather than the central host exchange) that will decide whether to execute a trade with a different member associated with a different local exchange that first communicated information about a first offer (Sibley at column 5 lines 17-21).

(b-2) Sibley teaches away from operating Sibley’s central exchange host so that it determines a minimum sell price and a maximum buy price. As discussed above at (a-1) and (a-2), Sibley teaches that Sibley’s user terminals, rather than Sibley’s central exchange host, determine and display prices being offered on various local exchanges selected by traders. Note that a global minimum or maximum price determined by Sibley’s central exchange host might be of no interest to a trader who does not wish to trade with members of the local exchanges who are offering the global minimum and maximum prices. Note also that Sibley’s figure 9 teaches displaying a single price for each traded item, which is inconsistent with displaying both minimum and maximum offer prices for each traded item.

(b-3) Sibley teaches away from having Sibley’s central exchange host execute one offer against another (i.e., to give rise to a binding obligation to clear and settle a trade). See the detailed discussion above in the context of the sixth issue on appeal at (b-1).

(c) The Examiner has failed to provide a reasonable basis for concluding that it would be obvious for one skilled in the art to modify Sibley to include, in combination, all of the elements missing from Sibley.

In the Office Action the Examiner has not suggested that it would be obvious to add to Sibley the following elements of claim 204 that are not disclosed in Sibley that the Examiner incorrectly stated are disclosed in Sibley: (a-1) Sibley's central exchange host's detecting that a buy offer may be executed in whole or in part against a sell offer, (a-2) Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be executed, (a-3) Sibley's central exchange host's determining a maximum price that is the maximum price at which the buy offer may be executed, (a-4) a buy offer that may be executed against a sell offer wherein the maximum buy price is MORE than (and thus, does not equal) the minimum sell price, (a-6) Sibley's central exchange host's executing a buy offer against a sell offer and (a-7) executing a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price.

In the Office Action at page 12 lines 13-15, the Examiner suggests as a motivation for adding to Sibley the selection of a first price that is indicative of recent trading activity by Sibley's buyer (NOT by Sibley's central exchange host) a desire to "enable the buyer to be informed with the recent trading activity of the item before selecting the [maximum] {although the examiner actually wrote 'minimum and', this appears to be a typographical error} price that he is willing to pay". However, Sibley already discloses a perfectly adequate means for buyer's at Sibley's user terminals to be informed about recent trading activity of an item before selecting the maximum price for a buy order that such buyer is going to submit. Sibley at column 7 line 61 - column 8 line 7 teaches having Sibley's central exchange host broadcast in bulk to user terminals commodity market information consisting of "data representing the trading of each commodity including price, volume and the like" that is "received in bulk by the user's terminal where it is selectively displayed ...".

To reject claim 185 as obvious in view of Sibley requires concluding that it would have been obvious for one skilled in the art at the time of Applicant's invention to modify Sibley to include, in combination, all of the following: (a-1) Sibley's central exchange host's detecting that a buy offer may be executed in whole or in part against a sell offer, (a-2) Sibley's central exchange host's determining a minimum price that is the lowest price at which the sell offer may be executed, (a-3) Sibley's central exchange host's determining a maximum price that is the maximum price at which the buy offer may be executed, (a-4) a buy offer that

may be executed against a sell offer wherein the maximum buy price is MORE than (and thus, does not equal) the minimum sell price, (a-5) Sibley's central exchange host's selecting a first price that is indicative of recent trading activity for a traded item, (a-6) Sibley's central exchange host's executing a buy offer against a sell offer and (a-7) executing a buy offer against a sell offer at a second price that is determined as a function of the minimum sell price, the first price and the maximum buy price; even though, as discussed above at (b), Sibley teaches away from (b-1) having Sibley's central exchange host detect that a buy offer may be executed in whole or in part against a sell offer, (b-2) operating Sibley's central exchange host so that it determines a minimum sell price and a maximum buy price and (b-3) having Sibley's central exchange host execute one offer against another.

Applicant argues that rejection for obviousness fails due to absence, in the Office Action, of any reasonable statement as to the basis for the views expressed in providing the elements that are missing in the reference. See *In Re Alhert and Kruger*, 165 USPQ 418 (CCPA 1970).

Reversal is requested.

**The twentieth issue on appeal.** Claim 186 (see Summary of Invention above at thirteenth embodiment) is rejected for the first time as obvious in view of Sibley. Claim 186 (which is dependent from claim 185) does not stand or fall together with claims 205-208 (which are dependent from claim 204), despite the Examiner's suggestion to the contrary. Claim 186 (which is dependent from claim 185) is separately patentable in view of Sibley for the same reasons that claim 185 is separately patentable.

Claim 186 is dependent from claim 185, which is discussed at length in the context of the eighteenth issue on appeal. For all of the reasons discussed in the context of the eighteenth issue on appeal, Sibley does not suffice to justify rejection of claim 186.

Reversal is requested.

**The twenty first issue on appeal.** Claims 205-208 (see Summary of Invention above at fourteenth embodiment) are rejected as obvious in view of Sibley. Claims 205-208 (which are dependent from claim 204) do not stand or fall together with claim 186 (which is dependent from claim 185), despite the Examiner's suggestion to the contrary. Claims 205-208 (which are dependent from claim 204) are separately patentable in view of Sibley for the same reasons that claim 204 is separately patentable.



Claims 205-208 are dependent upon claim 204 which is discussed at length in the context of the nineteenth issue on appeal. For all of the reasons discussed in the context of the nineteenth issue on appeal, Sibley does not suffice to justify rejection of claims 205-208.

Reversal is requested.

**The twenty second issue on appeal.** In the Office Action at page 16 lines 1-2, claims 169-186 are all rejected on the grounds that they are broader in scope than the allowed claims. The Examiner cites no authority for this rejection, and applicant's attorney is aware of no justification or support for such a rejection. Reversal is requested.

**The twenty third issue on appeal.**

In the Office Action at page 3, claim 196 is rejected under 35 USC 101 as directed to non-statutory subject matter because "... the data does not impact functionality to the data stream as claimed."

Applicant respectfully notes that Section 101 does not contain any requirement that an invention "impact functionality" to anything. In addition, Applicant notes that there are issued US Patents that include claims for data streams that are new and useful (see, for example, claim 21 of US Patent 6,301,462, which claims "[a] computer data signal embodied in a digital data stream comprising data including education modules, wherein the computer data signal is generated by a method comprising the steps of ...").

In the Office Action at page 16 lines 3-12, Claim 196 is rejected under 25 USC 101 on the grounds that "If there is no functionality then we cannot determine how useful the improvement is."

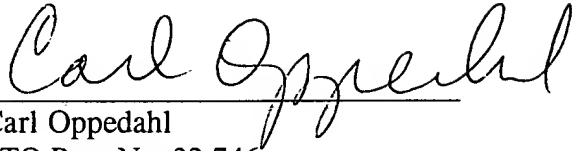
Applicant respectfully notes that Section 101 does not contain any requirement that an invention rise to some specified level of usefulness before it can be patented.

Furthermore, Applicant asserts that the limitations contained in claim 196 do impart functionality to the data stream as claimed.

Reversal is requested.

Respectfully,

Oppedahl & Larson LLP

A handwritten signature in cursive script, reading "Carl Oppedahl", written over a horizontal line.

Carl Oppedahl

PTO Reg. No. 32,746

P O Box 5068

Dillon, CO 80435-5068

telephone 970-468-6600